Healthy lives
Workplace

April 2016

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1. Executive summary

The aim of this briefing paper is to set out what is known about the benefits for wellbeing that can be afforded by a health-promoting working environment, and identify the barriers, challenges and opportunities for taking this forward. Like the other papers in this series (on Early Years, Children and Young People, and Communities), it is a rapid review, not a full-scale systematic review of the literature.

As section 2 notes, the World Health Organization predicts that the development of ‘health-promoting workplaces’ will be a prerequisite for sustainable social and economic development in the future. ‘Good work’ is well known to be beneficial for physical and mental health – and there is a clear social gradient in employment status and working conditions, with low socioeconomic groups more likely to be in work that is not conducive to good health, which should be addressed. Despite growing interest in workplace health, attempts to identify the key factors that could create a ‘culture of health’ in workplaces can be frustrating and time-consuming; there is a plethora of products and services available, often with little evidence behind them.

Section 3 delves into the big issues in workplace health, beginning with making the business case. There is some evidence that organisations are increasingly recognising that the benefits may extend beyond simple return on investment – and perhaps this is just as well, because data on workplace-health initiatives seem not to be collected in many cases, and what is measured cannot be managed. Sickness absence is the simplest metric that can be collected on the health of the workforce – and it was estimated to cost the UK economy about £15 billion in 2011. Section 3.2 sets out the main reasons for sickness absence – including musculoskeletal disorders, mental health, and lifestyle and chronic diseases (such as type 2 diabetes and cardiovascular disease). Section 3.3 deals with presenteeism – ‘being at work when you should be at home because you are ill’ – which is estimated to be even more costly than sickness absence. Section 3.4 looks at the changing demographic of the UK workforce, and the consequent need to extend working lives – which entails more flexible working for those with caring responsibilities, ensuring better health for longer, and ensuring education and training. The particular challenges facing small- and medium-sized enterprises (SMEs) in tackling health in the workplace – the lack of economies of scale and infrastructure – are highlighted in section 3.5 – and this is particularly important as they employ more than half the workforce. There is clear evidence that strong leadership, coupled with engagement of staff at all levels from the bottom up, is essential for good workplace health - and this is dealt with in section 3.6. Finally, changing working patterns can influence health (section 3.7). At the relevant points throughout section 3, short summaries of the NICE Guidance on workplace-health issues are presented.

Section 4 presents evidence on all of Section 3’s ‘big issues’ in turn. Section 4.1 runs through the research-based evidence, which is backed up by the eight tables of evidence that make up Annex 2. Section 4.2 is practice-based evidence, highlighting a list of ‘critical success factors’ for workplace interventions (Table E), followed by a series of 13 short case studies of workplace-health initiatives from a variety of organisations, large and small and from both the public and private sectors.

Section 5 sets out some of the key challenges that cut across the big issues. First, there is the need to promote health-seeking behaviour throughout the workforce, as there will always be people who are harder to reach with workplace-health programmes – and these are those who would probably benefit the most. Individual behaviour change is hard to foster, and targeting appropriately is necessary as one size will not fit all when it comes to improving health in the workforce. The lack of good monitoring and evaluation is a theme throughout the paper, which is surprising given the rate at which workplace health initiatives are increasing. Adopting better metrics will be essential in the future if we are to assess what works. A ‘lifecourse approach’ may also be a useful way forward, as the needs of employees will vary as they age, but this is often not appreciated or factored in to workplace-health initiatives.

Finally, section 6 contains some ‘talking points’ that can be taken forward for further discussion, drawing on the paper as a whole.

As the paper concludes, what is needed is the development of simple, consistent, well-resourced and business-friendly (and evidence-based) actions to drive positive health benefits.
2. Introduction

2.1 Workplace health: an acknowledged opportunity

The health and wellbeing of working-age people cuts across public health and employment policies, is of interest to health and business sectors, and has personal and societal implications. There is a huge potential target audience, with over half of our lives being spent in the workplace. **People at work are aged around 16 to 65, and have time to make the lifestyle changes that can foster better health.** Workplace-health initiatives are increasing worldwide as governments and employers recognise the gains to be made by addressing employees’ wellbeing, particularly given the dramatic increase in chronic non-communicable diseases (NCDs) that is causing rising levels of sickness absence, early retirement and premature death (C3 2011). There is a strong evidence base showing that work is generally good for physical and mental health and wellbeing (Waddell and Burton 2006), and that a healthy workforce is good for productivity. The World Health Organization (WHO) has recognised the workplace as one of the priority settings for health promotion in the 21st century and predicts that development of ‘health-promoting workplaces’ will be a prerequisite for sustainable social and economic development in the future (WHO 2016).

The term ‘healthy workplace’ is used in a wide variety of ways: the 29,200,000 returns in 0.38 seconds for the phrase on Google demonstrates the range of definitions that underpin the concept – and the products on offer. Most descriptions of workplace health have at least something to say about the benefits of a healthy workplace – identifying improved productivity and performance, reduced absenteeism and other costs – and there are many claims that a product or intervention will reduce the numbers of injuries, improve morale, increase the resilience of employees, and enhance business reputation. But few of them take the time to consider what a healthy workplace or a health-promoting workplace actually looks like, what sort of things it does or could do (beyond utilising the many specific products on offer) – and often fail adequately to factor in the need to capture good data, as what is not measured cannot be managed.

Identifying the key factors that could underpin the creation of a ‘culture of health’ and a truly health-promoting workplace is time-consuming, often frustrating, and can result in identifying contradictory claims based on limited or poor-quality evidence. Work can be a key determinant of health, and a key setting for health-improvement activity – yet, as the Marmot Task Groups highlighted:

- there is a social gradient in employment status and working conditions in England, with people in more disadvantaged socioeconomic groups at higher risk of unemployment and, if employed, of poor working conditions (Siegrist et al. 2010);
- the gradient in employment experiences will, in turn, contribute to a greater risk of poor physical and mental health for those in more disadvantaged positions in the social gradient (Siegrist et al. 2012); and
- the way work is organised, and the climate within the workplace itself, are contributing factors to the social gradient in health (PHE 2014).

The WHO defined the healthy workplace (emphasis added) as:

‘one in which workers and managers collaborate to use a continual improvement process to protect and promote the health, safety and well-being of workers and the sustainability of the workplace by considering the following, based on identified needs:

- health and safety concerns in the physical work environment;
- health, safety and well-being concerns in the psychosocial work environment including organization of work and workplace culture;

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1. 31.5 million people in 2015 (ONS 2015b), up from a reported 28 million in 2005 (DWP/DH/HSE2005).
2. The provisos are that account must be taken of the nature and quality of work and its social context; jobs should be safe and accommodating.
• personal health resources\(^3\) in the workplace; and
• ways of participating in the community to improve the health of workers, their families and other members of the community.’ (WHO 2010)

In line with the use of this definition, WHO suggests that a healthy workplace would exhibit five essential keys of workplace health: leadership, worker involvement, business ethics, involve a systematic process to support continuous improvement, and sustainability\(^4\) – and above all, demonstrate delivery of health-improvement outcomes for its workforce.

The concept of ‘good work’ is central, characteristics of which include positive psychosocial and physical environments, a living wage, control over the work, and good ill-health prevention and stress-management strategies (Marmot 2010). There is strong evidence that good work is generally beneficial for physical and mental health (Waddell and Burton 2006) and that work can be therapeutic for healthy people of working age (Black and Frost 2011). However, poor working conditions can have a devastating effect on both the mental and physical health of millions of people, beyond their working lives (Marmot 2010).

### 2.2 A confused landscape

In 2005, when the Department of Health (DH) and the Department of Work and Pensions (DWP) jointly published Health, Work and Wellbeing: Caring for our Future, the costs of absence due to sickness estimated as around £12 billion each year (DH/DWP/HSE 2005) – a figure that PwC estimated in 2013 to have risen to £29 billion (PwC 2013). But sickness absence is only part of the story. The additional effects of other related challenges – such as presenteeism, staff turnover, early retirement, the impact of the quality and stability of working conditions on workforce health, and the ongoing management of health conditions within the workplace – also have a detrimental economic impact. A survey in 2015 of 238 organisations of a variety of sizes and from different sectors found that almost 30 per cent now have a defined ‘wellness strategy’\(^5\) – but that the big majority (almost 80 per cent) have had the strategy in place for under three years: this is a young, and growing, area (REBA 2016).

However, despite this growing evidence base, increased interest and visibility, and associated investment in defining the right balance of activities to support and promote workplace health and wellbeing, significant, sustainable, replicable and measurable progress remains to be made. The landscape of products and services is crowded – navigating it takes time and effort, and judging between essentially similar product offers can be a minefield (Table A). A list overview of some of the key players working in this arena is provided at Annex 1, and more information about each is contained in the DebateGraph mind map that accompanies this scoping project.

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3 Defined as support and encouragement by the employer for healthy employee lifestyles. The WHO gives eight measures for this, drawing out the need for communication, assessment, engagement, planning, prioritisation, implementation, evaluation.

4 This focuses on long-term sustainability of the initiative and fit within the organisation. Environmental issues are not highlighted in the measures, although the need to consider the locally available resources is.

5 ‘Wellness’ is the word most commonly used in the US context; this report has generally used ‘wellbeing’ (the more usual UK term) for consistency, except when quoting a source, as here.
### Table A: Spectrum of potential options to support employees

<table>
<thead>
<tr>
<th>Thematic group</th>
<th>Examples of activities offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-house occupational health teams</td>
<td>• Pre-placement assessment&lt;br&gt;• Sickness absence management&lt;br&gt;• Medical assessment in relation to performance problems&lt;br&gt;• Ill health retirement applications&lt;br&gt;• Health surveillance medicals&lt;br&gt;• Wellbeing and executive medicals&lt;br&gt;• Health-promotion activity</td>
</tr>
<tr>
<td>Employee wellbeing programmes</td>
<td>• Health and lifestyle assessments and checks&lt;br&gt;• Promotion of physical activity&lt;br&gt;• In-house wellbeing weeks/challenges&lt;br&gt;• Health-promotion challenges&lt;br&gt;• Health champions</td>
</tr>
<tr>
<td>Wellbeing portals/online support</td>
<td>• Stress-management solutions&lt;br&gt;• Personal training programme (many including ideas for physical activity)&lt;br&gt;• Weight-management plan&lt;br&gt;• Healthy eating and nutritional advice (often including links to food retailers, recipes, etc.)&lt;br&gt;• ‘Social networking’ area where you can make friends and share ideas and experiences&lt;br&gt;• ‘Ask the expert’ services</td>
</tr>
<tr>
<td>Training programmes</td>
<td>• Mental-health awareness programmes (and line-manager training)&lt;br&gt;• Workshops to build employee resilience&lt;br&gt;• Health champion training&lt;br&gt;• Training programmes on family health and wellbeing (e.g. as part of CSR programmes)</td>
</tr>
<tr>
<td>Access to private health care</td>
<td>• Access to private health-care solutions&lt;br&gt;• Occupational health support&lt;br&gt;• Health risk management&lt;br&gt;• Drug and alcohol screening&lt;br&gt;• Health surveillance&lt;br&gt;• Absence management</td>
</tr>
</tbody>
</table>

Multiple sources – not exhaustive.
2.3 Beyond the workplace

In addition to the direct benefits to organisations of ensuring a healthier workforce, employers are well placed to have a large-scale impact on the population at large. Workplaces are a microcosm of society with strong communication and education structures where a culture of health can reinforce positive behaviours. Many have the additional advantage of an infrastructure that can measure health outcomes. A bonus for local communities is that the benefits enjoyed by employees may be shared more widely, particularly within families (Black 2008).

There are also accrued societal benefits from maximising the number of productive years from the workforce. As people are living longer, it is crucial that they are also able to live their extra years in good health, with the possibility of working longer. However, the rise of avoidable chronic diseases (The Work Foundation 2015a) stands in the way of such solutions, denying individuals the opportunity to live longer, happier, healthier lives, and taking people out of the workforce too soon and too often, even as governments extend the normal retirement age (see sections 3.2.5 and 3.4).

Support to employees with caring responsibilities outside the workforce can also be important – a 2014 survey found that more than 30 per cent of those who took early retirement did so because of their own, a relative or a friend’s ill health (BITC 2014), and the public expenditure costs of carers feeling unable to continue working have been estimated to be £1.3 billion a year (Carers UK 2012).

3. The big issues: the current position

3.1 Making the business case for investment in workplace health

3.1.1 Making the case

There is a strong evidence base showing that ‘good work’ is beneficial for physical and mental health and wellbeing (Waddell and Burton 2006) and that a healthy workforce is good for productivity. A number of reviews have identified cost savings for employers associated with the implementation of workplace health and wellbeing interventions (Baicker et al. 2010; Mcdaid and Park 2011; Kessler et al. 2010; Shahly et al. 2012). Interventions that seek to facilitate return to work have also been shown to be effective, with a number of studies showing that early intervention is effective in rehabilitation around backpain (Hoefsmit et al. 2012; Elders et al. 2000; Carroll et al. 2010) for example. However, many of the studies also commented on the paucity of evidence, and highlighted the need for more robust study criteria (see Annex 2: Table 1).

There has been a gradual shift from seeing health-improvement activities as ‘perks’ to recognising the hard-nosed business benefits. Escalating health-care costs and costs linked to absenteeism, presenteeism and employee turnover are areas of legitimate business concern. In the United States, where much of the work on the business case for investment has originated, interest may have traditionally been associated with a desire to control direct expenditure (namely, health-insurance contributions), with a broader range of factors – such as attracting quality staff and bringing down absenteeism – being more important in driving investment in the United Kingdom (Global CMO Network 2015). However, the literature suggests that in the United States direct financial gain is increasingly regarded as less important compared with staff wellbeing and engagement (see box on the next page). A 2014 survey of US employers and employees found that nearly 70 per cent of company executives believed their wellness programmes were cost effective, even though most had not demonstrated this through rigorous evaluation (EIU 2014). However, more than half said their programmes benefit employees intangibly even if a proper business case cannot be made, or they saw wellbeing programmes as part of a progressive HR strategy to make the company an

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*6 Despite this, a search of the literature (using NICE databases) to identify new publications on the business case for investment in workplace identified nine new papers since 2010 – of which only one paper actually mentioned the business case for investment. A similar search using ‘return on investment’ linked with workplace health as the search criteria identified 25 papers.
attractive employer. While the executives did not believe that full cost–benefit justification was either necessary or possible, there was a broad consensus that better data collection and interpretation would yield more effective programmes.

What should we measure – is it all about ROI?

There is an expectation that workplace health programmes will be able to show a return on investment but there is significant confusion about how they should be evaluated and assessed. Much of the work in this area is from the United States where companies directly finance employee healthcare and have sought to cut costs. A very different scenario in the United Kingdom has led to the view that the bottom line is not the only measure; however, there is some evidence that this is also becoming a trend in the United States where employee wellbeing is being seen as part of the corporate responsibility agenda. While the evidence suggests some employers can show short-term productivity gains, overall the evidence is patchy, with a lack of robust data and comparable studies undermining confidence in the efficacy of programmes and investment. There is a gap in terms of how clear organisations are about their objectives for health programmes and how they will recognise success, and follow up over time has been limited, so the sustainability of outcomes, even from programmes that have reported success, is often unknown.

3.2.1 The extent of the issue

In 2011, sickness absence\(^7\) was estimated to cost the UK economy around £15 billion a year, predominantly in lost output (Black and Frost 2011), with 131 million days lost due to sickness absences (ONS 2012). The biggest single cause of days lost is musculoskeletal problems, followed by minor illnesses (such as colds and flu), stress, and both personal and work-related mental-health issues (Figure 1). For many organisations, there are three different types of sick pay available in the UK. Statutory sick pay (SSP) is paid by the employer for up to 28 weeks. It is treated like earnings for the purposes of income tax and forms part of taxable income. To get SSP, the employee must earn at least £112 a week. It does not matter whether s/he is working full- or part-time. Agency workers and workers on a fixed-term contract qualify for SSP. The self-employed do not qualify for SSP, and employees do not qualify for SSP for the first three days off work. If an employee is off sick for longer than 28 weeks or if s/he does not earn enough to qualify for SSP, s/he may qualify for Employment and Support Allowance (ESA) instead. There are two sorts of ESA: contributory ESA (depending on whether s/he has paid enough national insurance contributions) and income-related ESA (depending on income and savings). Contractual sick pay is paid by the employer. It might not be the normal rate of pay, but it cannot be less than SSP. For example, some contracts might provide full pay for the first three months of sickness and then half-pay for another three months.

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the cost of absenteeism alone can be huge (see Annex 2: Table 2 for general interventions). The most common reason given for sickness absence in 2013, accounting for 30 per cent of sickness absences, was minor illnesses such as cough and colds: around 27.4 million days lost (Figure 1).

Figure 1: Reasons for sickness absence and number of days lost, 2013, UK

<table>
<thead>
<tr>
<th>Reason given for sickness</th>
<th>Days lost (millions)</th>
<th>Percentage (%) of sickness absences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Musculoskeletal problems (2)</td>
<td>30.6</td>
<td>20</td>
</tr>
<tr>
<td>Minor illnesses</td>
<td>27.4</td>
<td>30</td>
</tr>
<tr>
<td>Other (3)</td>
<td>21.7</td>
<td>14</td>
</tr>
<tr>
<td>Stress, depression, anxiety</td>
<td>15.2</td>
<td>8</td>
</tr>
<tr>
<td>Gastrointestinal problems</td>
<td>8.7</td>
<td>7</td>
</tr>
<tr>
<td>Respiratory conditions</td>
<td>5.3</td>
<td>4</td>
</tr>
<tr>
<td>Eye/ear/nose/mouth/dental problems</td>
<td>5.2</td>
<td>4</td>
</tr>
<tr>
<td>Heart, blood pressure, circulation problems</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Genito-urinary problems</td>
<td>3.2</td>
<td>3</td>
</tr>
<tr>
<td>Headaches and migraines</td>
<td>1.7</td>
<td>2</td>
</tr>
<tr>
<td>Serious mental health problems</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Prefers not to give details</td>
<td>5.9</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>131</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Sources: Labour Force Survey person dataset(4) and ONS 2014a

Notes:
1. The reasons provided for sickness absence are for all people in employment aged 16 and over.
2. ‘Musculoskeletal problems’ includes back pain, neck and upper limb problems and other musculoskeletal problems. These problems are responsible for a smaller percentage of sickness absence, but a great number of days lost.
3. ‘Other’ includes the total number of days lost to diabetes as well as days lost to accidents, poisonings, infectious diseases, skin disorders and anything else not covered.
4. Quarterly datasets were used to generate annual averages. A day is defined as 7.5 hours.

NICE Guidance: Managing long-term sickness absence and incapacity for work (NICE 2009a)

Employers are advised to identify a well-trained case-worker, with the skills and training to act as an impartial intermediary, to undertake initial enquiries with employees who are on long-term sickness absence or recurring short- or long-term sickness absence to identify the reason for sickness. Where action is required, the guidance recommends that a detailed assessment be made by the individual to determine what interventions and services are required and to develop a return-to-work plan.

3.2.2 Addressing the causes of sickness absence

According to 2015 data from the Chartered Institute of Personnel and Development (CIPD), 87 per cent of organisations collect absence data, the highest rate being 95 per cent in the public sector (private services 84 per cent; manufacturing and production 85 per cent; non-profits 85 per cent) (CIPD 2015). This is an increase on 2014, when over 75 per cent of organisations recorded their annual employee absence rate (91 per cent in the public sector), with 87 per cent of organisations collecting information on the causes of

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(4) The CIPD has produced a number of factsheets promoting good practice in absence management: see [http://www.cipd.co.uk/hr-topics/absence.aspx](http://www.cipd.co.uk/hr-topics/absence.aspx).
sickness absence (CIPD 2014). Sections 3.2.3–3.2.5 provide an insight into the commonly occurring causes of sickness absence.

3.2.3 Musculoskeletal disorders

Musculoskeletal disorders (MSD) can affect muscles, joints and tendons in all parts of the body. Most work-related MSD develop over time, with sufferers experiencing episodic or chronic pain, and symptoms existing on a continuum from mild to severe. These disorders are seldom life-threatening, but they impair the quality of life of a large proportion of the adult population. **MSD was the biggest single cause of days lost to sickness absence** in 2013, accounting for 30.6 million days lost – 20 per cent of overall sickness absence (ONS 2014a – Figure 1, above). HSE statistics, based on the Labour Force Survey data, suggest that in Great Britain there were 169,000 new cases of work-related musculoskeletal disorders in 2014/15 (an incidence rate of 530 cases per 100,000 people), and a total prevalence of 553,000 out of 1,243,000 for all work-related illnesses (44 per cent of the total) (HSE 2015). Absence levels have always been higher among manual workers due to the nature of their work, but combined with the ageing workforce and the consequences of lifestyle choices, absence caused by musculoskeletal disorders is very high.

3.2.4 Mental health

Mental-health problems are a major cause of unemployment and sickness absence. Mental ill-health costs the UK economy £70 billion a year (equivalent to 4.5 per cent of GDP) through lost productivity, social benefits and healthcare payments (OECD 2014). **Stress, depression and anxiety** were responsible for 8 per cent of sickness absence in 2013, contributing 15.2 million days of work lost, with a further 1 million days lost for more serious mental-health issues (Figure 1, above).

The importance of mental wellbeing cannot be ignored (Black 2015):

- over 15 per cent of employees report being bullied at times;
- less than 70 per cent feel their manager cares about their health and wellbeing;
- a majority of employees feel they face unrealistic time pressures; and
- a minority feel their line manager has received training to support their health and wellbeing.

### NICE Guidance: Promoting mental wellbeing through productive and healthy working conditions: guidance for employers (NICE 2009b)

NICE believes that promoting the mental wellbeing of employees is important as it can be advantageous in yielding economic benefits for the organisation - by increasing job commitment and job satisfaction, staff retention, improving productivity and performance, and reducing staff absenteeism. Recommendations include integrating promoting mental wellbeing into all policies and practices concerned with managing people, adopting appropriate systems for assessing and monitoring employees’ mental health, adopting a company culture that supports flexible working and addresses employees’ concerns and line managers should be supported and trained in promoting the mental wellbeing of employees.

3.2.5 Lifestyle and chronic diseases: prevention and management

Lifestyle and chronic non-communicable disease management is a ticking time bomb, with the consequences of lifestyle choices affecting people’s health in the short, medium and long term. Unhealthy lifestyles – tobacco use, a lack of regular physical activity, alcohol misuse, and consumption of diets rich in highly saturated fats, sugars and salt – have been linked to higher levels of risk factors for conditions such as obesity and hypertension, and the development of chronic diseases such as type 2 diabetes and cardiovascular disease (Table B).

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9 Manic depression, schizophrenia and other serious mental-health problems.
Table B: Lifestyle challenges of the workforce

In Vitality’s Britain’s Healthiest Company Survey 2014:

- 20% reported being obese;
- 36% did not exercise enough;
- 39% had some health risks (present or past) related to smoking;
- 19% had health risks related to alcohol;
- 52% had suboptimal nutrition;
- 62% of respondents reported at least two bad lifestyle habits;
- one third (33%) of employees had three or more risk factors – but, of these, over half (58%) believed they are in ‘good’ or ‘very good’ health (making them less likely to have the motivation to change bad habits); and
- almost one in five employees (19%) suffered from at least one lifestyle-related chronic condition, such as heart disease, diabetes or high blood pressure.

Source: RAND Europe 2014.

Organisations stand to be affected by not only the ill health of current employees, but also emerging health challenges, associated with, for example, managing chronic conditions associated with obesity. While employers cannot dictate employees’ personal choices, they can be influential – both within and outside the workplace.

A number of reports have focused on the challenges associated with chronic-disease management in the workplace. Chronic illnesses have a major impact on healthy life expectancy and on working life. Chronic disease risks accumulate over time, which means that employers have the potential to assume a pivotal role during working years, when risk levels are high (Vitality Institute 2014). In effect, addressing the underlying risk factors for chronic conditions in the workplace has the potential to lead to stronger economic growth, increased productivity and reduce demands on health services in the longer term.

A useful resource for employers is the good practice guide produced by the European Network for Workplace Health Promotion for supporting chronic illness in the workplace (ENWHP 2012), which draws together a series of guidelines for supporting people with chronic illness to return to work at an early stage, providing examples of checklists and action plans. NICE has also produced guidelines (see box).

NICE Guidance: Workplace health promotion – how to help employees to stop smoking (NICE 2007)

NICE advises that employers take steps to help employees stop smoking to improve the health of people in England and reduce health inequalities, as well as taking advantage of the opportunity to offer to improve people’s health. Recommendations include employers publicising interventions and making information on local smoking-cessation support easily available at work, allowing employees time off to attend smoking cessation services during work hours without loss of pay and employees and their representatives should in turn encourage employers to provide advice, guidance and support to employees who want to stop smoking.

NICE Guidance: Workplace health promotion – how to encourage employees to be physically active (NICE 2008)

Employers are advised to introduce, monitor and develop organisation-wide plans and/or policies to encourage and support employees to be physically active by including ways in which there should be numerous options for different parties to affect positive change. Examples of types of action include policies that encourage employees to use modes of transport that involve physical activity, flexible working policies and incentive schemes to improve health, and providing guidance and links to local resources on the employers’ premises.
Some organisations – particularly in the United States – have been using financial and other incentives (such as decreased health-insurance premiums) to encourage healthier lifestyles among their employees. However, a 2015 survey of US employers found that, although 96 per cent of employers offering incentives felt that their incentive programmes help to control medical costs, fewer than half are measuring the return on investment (Deloitte 2015).

3.3 Presenteeism

The concept of presenteeism can be used in a number of different ways (Juniper 2012):

- lost productivity that occurs when employees come to work when they are ill and therefore perform below standard, also termed ‘sickness presence’ or ‘lost health-related work productivity’. This is defined by the National Institute for Health and Care Excellence as ‘being at work when you should be at home because you are ill’ (NICE 2015);
- to encompass healthy employees who are just non-productive. No employee is 100 per cent productive all the time, but examples of this type of behaviour include surfing the web for extended periods, making frequent personal phone calls or regularly going shopping; and
- to refer to those that are overly present – putting in consistently long hours and not taking full holiday entitlement.

Each of these forms can have an impact on the productivity of a company – and can be indicative of a health problem, or of a current or emerging organisational problem. Low performance due to attending work while unwell may be costing industry twice as much as absenteeism (RCPsych 2008), with estimates from the United States even higher. One US study estimated that presenteeism (lost work performance) due to insomnia alone could be causing as many as 252.7 million days of lost work performance ($63.2 billion) per year (Kessler et al. 2011).

Worryingly, ‘presenteeism’ can be responsible for what looks like a fall in absenteeism – particularly during an economic downturn, when fears of job loss are greatest (Virtanen et al. 2005) – even though the evidence suggests that it can be as damaging to productivity as sickness absence.

NICE, in its guidance on workplace health, says that presenteeism may be caused by the culture of the workplace or the nature of the work itself, with many staff reporting that they go to work when they are ill because they do not want to let their team down. The NICE guidance quotes research showing that the majority of respondents felt the pressure to go to work came from themselves, but with a substantial minority (20 per cent) saying they felt under pressure from their manager.

Prolonged periods of fatigue and inadequate recovery time can also lead to decreased performance at work, including incidents at work (Niu et al. 2011).

In addition, some studies report that presenteeism has consequences for individual health. For example, it can be a risk factor for future sickness absence (Bergström et al. 2009) and result in increased exhaustion (Demerouti et al. 2009). An American study that looked at the rate of occupational injuries noted that workers with paid sick leave were 28 per cent less likely overall to suffer non-fatal injuries than workers without access to paid sick leave, suggesting that presenteeism may also have an effect on occupational injuries (Asfaw et al. 2012).

3.4 Extending working lives

The rising number of older people in society – together with the increasing policy focus on active ageing, combating ageism in the workforce and reversing the trend towards early retirement – has led to a growing interest in the role of older people in work. Recent ONS statistics showed that 75.3 per cent (77.8 per cent of men and 72.4 per cent of women) of people aged between 50 and state pension age were participating in the labour market in the final quarter of 2014, along with 12.1 per cent (13.5 per cent of men and 11

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10 The participation rate for this age group has been increasing steadily since 1994, when the participation rate was 68.5 per cent.
per cent of women) of people beyond state pension age\(^\text{11}\) (67.2 per cent of whom were working part time) (ONS 2015a).

Previous reports have highlighted the need to encourage older people to stay in the workforce (The Work Foundation 2015b), with The Work Foundation’s Health at Work Policy Unit identifying a series of recommendations to address the issue of making work more attractive for an ageing population, including special occupational-health services, early intervention, workplace adjustments, education and training, flexible work and an AGE Confident campaign to persuade employers of the benefits of taking on older workers and to challenge negative stereotypes. NICE is also due to publish Guidance on ‘Workplace health for older employees’ imminently (March 2016).

As already noted, the rise of avoidable chronic diseases (The Work Foundation 2015a) is denying people the opportunity to live healthier lives, taking people out of the workforce – affecting moves to increase pension age. There is, however, little available evidence that considers the implications of rising pension ages, and what this might mean for people with longer gaps between ending work and having access to the state pension – or the broader issues of what this might mean in terms of experience of health inequalities associated with private pension provision. One study to consider this issue in Germany suggested that there had been an increase in social inequality in retirement decisions as a result of the policy shift towards postponing retirement, with a consequent need for further work to inform future labour market and pension reforms to prevent a rise in social inequalities (Hofäcker and Naumann 2015). A number of US studies have looked at the predictors of satisfaction with post-retirement working (Foley and Lytle 2015; Lytle 2015), and others have highlighted significant tensions in terms of differential access to rehabilitation support after injury and longer recovery times (Algarni et al. 2015), but the literature on this field is young.

Finally, caring responsibilities may take workers out of the workforce if they are not supported to manage both. According to a Business in the Community survey (BITC 2014), more than 30 per cent of workers aged over 50 taking early retirement are doing so because of ill health: their own, a relative’s or a friend’s. A report published by the Department of Health in 2012 (HM Government 2013) notes that some 315,000 working-age carers have left work and remain out of work. This has consequences not just for employers and employees, but for public finances: the public expenditure costs of carers feeling unable to continue working have been estimated to be £1.3 billion a year (Carers UK 2012).

<table>
<thead>
<tr>
<th>Table C: Carers in the workplace</th>
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<tbody>
<tr>
<td>• The peak age for caring — 45-64 — is also the point at which people are most likely to have developed the skills employers need to succeed.</td>
</tr>
<tr>
<td>• A quarter of carers responding to Carers UK’s 2013 State of Caring Survey said that although their employer was sympathetic, they did not offer support.</td>
</tr>
<tr>
<td>• Demand for care is expected to rise with the ageing population, putting pressure on unpaid carers (estimated at 5.4 million people in the report)</td>
</tr>
<tr>
<td>• It has been estimated that nearly 3.5 million people may be caring in the next 25 years, and that by 2017 the UK will reach the tipping point for care when the numbers of older people needing care will outstrip the numbers of working age family members currently available to meet that demand.</td>
</tr>
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</table>

Source: Carers UK 2012

In March 2016, NICE updated its 2015 Guidance on management practices in workplace health (see section 3.6) with recommendations about older employees (those aged over 50) in paid or unpaid work.

As a recent evidence review (Cox et al. 2014) states, ‘Despite increasing policy interest in how the health and wellbeing of older workers can be supported … on the face of the evidence so far, there are very few

\(^{11}\) Since 2011, the participation rate for men who are beyond state pension age has continued increasing, whereas for women in the same age group participation rate has been falling since 2010. This may be linked to the changes in female pension age, and may mean that women are less likely to work beyond the new pensionable age. Around 3 per cent of men aged 65–9 and 5 per cent of women within the same age group were from ethnic-minority backgrounds according to 2013 data (DWP 2013, Table 5A).
intervention studies on this topic. This review urges research commissioners to prioritise funding of high quality studies into the impact of workplace level interventions on older workers’ health and well-being outcomes which will seek to track the health and well-being of individuals during the lifespan of the intervention and onwards to the end of their working lives.’

3.5 Supporting small and medium-sized enterprises

A major challenge to improving the health of working-age people is finding ways to support small and medium-sized enterprises (SMEs) to implement wellbeing initiatives, as they lack the economies of scale or the substantial infrastructures that enable major organisations to establish wellbeing initiatives (Black 2008; Husk 2014).

The US Vitality Institute Commission (Vitality Institute 2014) highlighted the lack of SME representation in the growing leadership cadre that is raising the profile of workplace wellbeing throughout the United States. A recent survey found that, while over three-quarters of employees in large businesses feel that health and wellbeing are part of organisational culture, this was a view shared by just 61 per cent of employees in companies with fewer than 50 employees (EIU 2016).

This challenge also applies in the United Kingdom where, according to the Federation of Small Businesses, SMEs (generally defined as those with an annual turnover of less than £40m and fewer than 250 employees) account for 99.3 per cent of all private-sector business, 48 per cent of private-sector employment and 33 per cent of private-sector turnover. Between them, they employ 15.6 million people – more than half the total workforce (FSB 2015).

The Work Foundation has developed a series of policy recommendations to tackle the lack of support for SMEs in workplace health (The Work Foundation 2015c). These include taking a strategic approach (such as a cross-government narrative to support SME engagement in health), delivering appropriate training and support, and improving access to advice (such as a one-stop-shop for SME health and wellbeing information, and a centralised bank of case studies and examples).

3.6 Developing leadership capacity and staff engagement

There is a clear evidence base showing that line managers’ attitudes and skills are essential to delivering change, and there must be visible participation and support for workplace health from the very top of the organisation. The latest NICE guidance, published in June 2015, makes recommendations on improving the health and wellbeing of employees, with a particular focus on organisational culture and context, and the role of line managers (NICE 2015a – and see box). This guidance could be highly influential in guiding workplace programmes in the future. However, more information is needed about the take-up of NICE guidance across the workforce before judgements can be made about its likely impact.

NICE Guidance: Workplace health – management practices (NICE 2015b)

NICE advises that health and wellbeing is fully incorporated across management practices and that it is an organisational commitment from the top down. Employers, senior leadership and managers, and human resource teams should ensure that the physical work environment enables good health and that mental wellbeing at work is promoted. Senior leadership should ensure that the organisation actively supports employee health and wellbeing with appropriate practices and policies in place, line managers should be given adequate time, training and resources to balance aims of the organisation with concern for their employees’ health and wellbeing and their leadership style should encourage creativity, engagement, give a sense of meaning as well as offer support.

12 There are 28 million small businesses in the United States, which account for 55 per cent of all jobs and 66 per cent of all net new jobs since the 1970s. The 600,000+ franchised small businesses account for 40 per cent of all retail sales and provide jobs for around 8 million people.

13 According to government statistics, there were 5.4 million businesses in the United Kingdom in 2015, over 99 per cent of which are SMEs (House of Commons Library 2015).
NICE says organisations must value employee wellbeing to the extent that it becomes a core priority at the very top. It sets out a series of recommendations to improve the physical working environment, but is also very strong on ensuring mental wellbeing at work through attention to the principles of justice, fairness and consistency, and a detailed set of proposals that would make employees feel valued and trusted, highlighting the Health and Safety Executive’s management standards for work-related stress. Pressure from managers can also affect sleep patterns – there is consistent strong evidence for a negative relation between job demands and sleep quality, and evidence for a positive relation between job control and sleep quality (Van Laethem et al. 2013).

**Senior management** are charged with making sure that they display good practice to more junior line managers. They must also make line managers aware that supporting employee health and wellbeing is a central part of their role, for example by including it in job descriptions and emphasising this during recruitment. Business in the Community has recently produced a report and call to action on the need for line managers to lead on mental wellbeing – their own and that of their team (BITC 2016).

However, as well as leadership from board and senior management, **bottom-up engagement** is also key: staff must be given a voice within the organisation.

‘Engagement’ relies on aspects of the job (such as autonomy, coaching and performance feedback) and personal resources (optimism, self-efficacy and self-esteem) – and work engagement is predictive both of wellbeing and of job performance (Bakker et al. 2008). For example, the link between employee engagement and staff performance in the NHS has been strongly made (West and Dawson 2012) – a significant issue, as higher levels of staff engagement go with lower turnover, better patient satisfaction scores and reduced sickness absence.

### 3.7 Working patterns

One of the emerging challenges for workplace health is the changing workplace environment and working patterns. Between 2012 and 2015, the number of UK organisations that adopted **flexible working** has increased by more than a third (and by almost a half in the public sector) (Robert Half 2015). In the first quarter of 2014, 4.2 million people (13.9 per cent of the workforce) worked from home\(^{14}\) – an increase of 1.3 million since 1998 (ONS 2014b).

Remote working has advantages for businesses – it increases flexibility, with high-speed communication links and mobile devices reducing the need for office space – but it gives employers very limited control over the way in which they organise their environment or their working lives. While this can have positive benefits, it may also be a cause of ill health. Employees are working in isolation, with limited interactions with peers or management.\(^{15}\) Health and safety legislation (including the Health and Safety at Work Act 1974, the Display Screen Equipment Regulations, and the Provision and Use of Work Equipment Regulations) continue to apply to remote workers, and employers retain the duty of care.

**Shift working** is also a particular challenge: a number of studies have highlighted that shift work can have a detrimental impact on circadian rhythms, sleep patterns (the accumulation of sleep debt results in chronic fatigue), stress levels and work–life balance, and, in addition, shift workers may struggle to access health-improvement initiatives, particularly if they work during the night (for example, Niu et al. 2011).

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\(^{14}\) Two-thirds of these were self-employed.

\(^{15}\) For specific guidance on remote working, see IOSH 2014.
4. What works and what doesn’t

4.1 Research-based evidence

4.1.1 Making the business case

A report produced by The Work Foundation, which encapsulated the business case for investment in workplace-health initiatives (Bevan 2010), provides criteria for judging the robustness of evidence, which is key to accurate return-on-investment assessment (Table D).

Table D: 10 criteria to assess quality of evidence on the business case for workplace-health interventions

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Things to look for</th>
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| Questionable research design     | • Does the study include a control group and have clear, objective and measurable objectives/success criteria?  
                                 | • Have the results been followed up longitudinally? Over what time period?  
                                 | • How confident are you/they that the results can be replicated or verified? Do they give sufficient detail on the methodology that you could replicate the study? |
| Relying on take-up as a success criterion | • What other success criteria are used? Has consideration been given to behavioural outcomes? Or reductions in sickness absence? How does the study target its population? Have inequalities been considered in the design? |
| Workplace only causes and cures  | • How is behaviour outside work being considered within the study? Is smoking consumption (for example) outside work measured?                          |
| Productivity and performance     | • Have objective measures been used for productivity and performance? Is self-reporting the only measure used?                                      |
| Attribution                      | • How has the study controlled for confounding factors in its discussion of cause and effect?                                                        |
| Dead weight effect               | • Would some of the changes have happened anyway, regardless of the study intervention? Is this discussed?                                            |
| Time lags                        | • Has there been any attempt at longitudinal follow up? How have effects over time been measured?                                               |
| Sustainability                   | • How have effects over time been measured? Was the behaviour change/effect sustained over the short, medium or long term? Do you know?               |
| Focus on large organisations     | • How sure are you that the results can be replicated in a smaller organisation?                                                                   |
| Co-morbidity                     | • Is this taken into account? Does the study assume that people only have back pain, for instance, or does it also consider associated mental-health issues? |

Source: Adapted from Bevan 2010

A review of workplace initiatives over the past 30 years (Goetzel et al. 2014) found that well-designed and well-executed programmes, founded on evidence-based principles, can achieve positive health and financial outcomes, if they are implemented in an organisation with a culture that enables success. Goals must be aligned to business aims and there should be ongoing evaluation. However, if the only goal is to save money, it may not be worth the investment (Goetzel et al. 2014).
Importantly, many companies are also reporting short-term productivity gains as a result of addressing staff health and wellbeing. For example, the Confederation of British Industry (CBI 2014) cites a number of case studies that demonstrate positive benefits from interventions, including a study demonstrating a 5:1 ROI following a three-year employee health and wellbeing programme introduced by the Royal Mail Group and Parcelforce. Sickness absence fell from 7 to 5 per cent – and estimates suggest that reducing sickness absence by 2 per cent between 2004 and 2007 contributed to a total saving across the Royal Mail Group of as much as £227 million in direct costs. At John Lewis, early intervention among those with musculoskeletal disorders led to a 50 per cent reduction in pain and increased productivity of 1.1 days per person per week in the first eight months of the programme, saving 23,000 days’ productivity.

A review of 56 global peer-reviewed studies (Chapman 2005) found evidence that programmes can have a:
- 27 per cent reduction in sick-leave absenteeism;
- 26 per cent reduction in health-care costs;
- 32 per cent reduction in workers’ compensation and disability-management cost claims; and
- nearly 6 to 1 return on investment ratio (although it is not clear whether these outcomes were short or long term).

For the last three years, Business in the Community has encouraged FTSE 100 companies to measure their performance in reporting on wellbeing and engagement against a best-practice framework, the Wellbeing Public Reporting Guidelines (2013). By 2015, 69 per cent of the companies were reporting across all five themes in the Guidelines: better work, better physical and psychological health, better relationships, better specialist support, and working well (BITC 2015).

4.1.2 Sickness absence

4.1.2.1 Musculoskeletal disorders

Systematic-review evidence suggests that workplace programmes that have targeted backpain in the sub-acute phase of an episode have had the most success in reducing sickness absence (Elders et al. 2000). Interventions involving employees, health practitioners and employers working together, to implement work modifications for the absentee, were more consistently effective than other interventions (Carroll et al. 2010). The effectiveness of physical-conditioning programmes in reducing sick leave for workers with back pain remains uncertain (Schaafsma et al. 2013) and there was no effect of co-worker, supervisor or general work support on risk of new onset back pain. Some effects of employment support were, however, found for recovery and return-to-work outcomes; greater levels of co-worker support and general work support were found to be associated with less time to recovery or return to work (Campbell et al. 2013). Activities that have been targeted at improving physical activity levels have also shown some benefit for addressing MSD (see Annex 2: Tables 3 and 5).

4.1.2.2 Mental health

Whilst studies have shown that work generally has a beneficial impact on mental health, it can also contribute to stress, anxiety and depression. A lack of control over work, under-utilisation of skills, high and low workload, poor working conditions and pay, a lack of personal support, workforce bullying and a low sense of personal value can all negatively affect employee wellbeing. Workplaces can play a critical role in identifying and addressing the signs of stress early, and providing active support to employees. However, there have been very few systematic studies that have looked at the effectiveness of workplace interventions.

A 2005 review (BOHRF 2005) found that workplace interventions to address mental-health challenges can fall into three distinct categories: prevention, retention and rehabilitation. This found that there was:
- modest evidence that stress management could have a beneficial and practical preventative impact;
• strong evidence that individual rather than organisational approaches to managing common mental-health problems were more likely to be effective and promote retention (but that populations needed to be accurately identified and targeted); and

• strong evidence that individual therapy, particularly cognitive behavioural therapy (CBT), was effective in rehabilitation (this could be face-to-face or virtually).

These findings are broadly consistent with the findings of other reviews – for example a 2012 study that focused on managing stress, which suggested that organisational interventions show mixed evidence of benefit, although organisational programmes for physical activity show a reduction in absenteeism, and individual interventions, such as CBT, were effective (Bhui et al. 2012).

The inter-relationships between mental health and other co-morbidities can, however, be a confounding factor, for example, in studies that have looked at promoting return to work from MSD. Initiatives to improve the physical-activity level of the workforce have also been shown to result in an improvement on mental health and wellbeing. In addition, a systematic review of the effectiveness of mental-health first aid found that it increases participants' knowledge regarding mental health, decreases negative attitudes, and increases supportive behaviour toward individuals with mental-health problems (Hadlaczky et al. 2014) (see Annex 2: Tables 4 and 5).

4.1.2.3 Lifestyle and chronic diseases: prevention and management

There have been limited published research studies into management of lifestyle issues in the workforce. However, there is evidence to show that workplace interventions can be effective in smoking (Kouvonen et al. 2012), physical activity (Groeneveld et al. 2010) and nutrition (Ni Mhurchu et al. 2010). As one study on physical activity shows, there may be benefit to be achieved from targeting recruitment strategies to optimise uptake and sustainability of benefit within particular workforce subsections – for example, by considering how the intervention relates to self-image (Verdonk et al. 2010). The effective of interventions on sedentary behaviours – sitting – is more equivocal (Chau et al. 2010).

The quality of the evidence remains a challenge. The outcomes being measured are not always behavioural, and there is limited evidence that studies purporting a positive outcome have considered behaviour outside the workplace – these are gaps that need to be considered in future study design. Indeed, two systematic reviews suggested that interventions with less rigorous research designs were more likely to report being effective than those without these characteristics! (Rongen et al. 2013; To et al. 2013).

In addition, as part of the search for this report, PROSPERO was searched to identify work in progress. This identified three systematic reviews that have had protocols submitted, covering physical activity (two studies) and diet and obesity (one study) (see Annex 2: Table 5).

4.1.3 Presenteeism

There has been limited published literature focusing on presenteeism, but there are concerns that uncertainties surrounding presenteeism measurement is a source of bias (Uegaki et al. 2011). There is preliminary evidence that some workplace-health programmes can positively affect presenteeism (Cancelliere et al. 2011; Jensen 2011). Future research would benefit from standard presenteeism metrics and studies conducted across a broad range of workplace settings (see Annex 2: Table 6).

4.1.4 Extending working lives

Much of the literature on extending working lives focuses on the need to manage retirement, provide appropriate training, or picks up the health risks associated with an older workforce, as many already common health problems become more prevalent with age as part of the normal, inevitable ageing process. Yet maintaining good health and the ability to work for as long as they want or need to goes well beyond the benefits to employers: it is fundamental to giving people a better life in old age.

Issues identified by systematic reviews (Crawford et al. 2010) that may need to be considered include:

• longer working lives may result in longer exposures to risks. There is a need for studies on the cumulative effect of work on health;
• many older workers are living with chronic health problems, and thus may have specific needs that could be addressed within the workplace;

• older workers may be more vulnerable to certain hazards – in reviewing accident data, a systematic review noted that although older workers are at a reduced risk of accidents, they are more at risk of fatal accidents; and

• age discrimination needs to be avoided – not least as this could be a cause of stress for older people in the workplace.

There is a dearth of literature examining the interrelationship of work and health in later life (Granville and Evandrou 2008) (see Annex 2: Table 7).

4.1.5 Supporting small and medium-sized enterprises

A study that looked at what public-health support SMEs needed identified two key themes (Holt and Powell 2015):

• acute seasonal sickness was the most pressing reason for employee absence from work (viruses, flu, seasonal disorders) for the SMEs in the research;

• employees will present at work with acute illness that requires rest, is easily transmitted to other employees and is likely to take a longer time from which to recover, as cross-infection and reinfection occur; and

• a subsidiary theme was that of authenticity and the reporting of sickness, contributing further to sickness presenteeism as employees seek to legitimise their illness.

Whilst this study was focused on SMEs in Greater Manchester, it highlights the potential for practical support that can be offered to SMEs. In this case, provision of flu vaccines was highlighted as one way to support SMEs (Holt and Powell 2015).

A number of other small-scale studies reporting on workplace-health initiatives in SMEs note that a widely recognised problem is the (lack of) availability and propensity of SME staff to attend face-to-face training/therapy or workshop-style interventions, in contrast to larger corporate or public-sector work settings (Martin et al. 2009), and that there is significant potential for developing e-learning materials for training those with a brief for promoting workplace health and safety in SMEs (Hodgins et al. 2010).

However, it should be noted that there is limited data available on what SMEs need and would value, and few studies have looked at what might best support them to achieve their potential. Consideration should be given to how best to engage with business leaders within this group, to identify their support needs.

4.1.6 Developing leadership capacity and staff engagement

There is a substantial and growing evidence base showing that workplace organisational factors can have an impact on health and wellbeing, particularly around reducing sickness absence. Managerial support in addressing stress and ‘job strain’ at individual level can result in greater awareness of the factors that affect vulnerability to the health consequences of job strain and stress through addressing demand/control imbalances in the workplace environment (Andrews and Wan 2009), enabling immediate response and management of the potential stressors, and potentially preventing sickness absence.

Leadership – from board and managers – is essential in establishing a ‘culture of health’, which can make a real difference to engagement with workplace health more broadly. A 2015 US survey found that almost 70 per cent of employees think that health and wellness are an important part of organisational culture – and these employees are very significantly more likely to feel that wellness programmes are well designed, useful and accessible (EIU 2016).

4.1.7 Working patterns

There is little evidence in the literature on the impact of remote, mobile and flexible working on employee health and wellbeing. Remote working can result in social/professional isolation, a tendency to work longer hours, and the frustration of having unclear roles, and limited feedback from peers and line managers – but
how this impacts on the health and wellbeing of the remote worker is largely unknown (Crawford et al. 2011). Research is needed to assess the impacts of remote working on employee health (Annex 2: Table 8). The impact of shift work on poor sleep is also a subject of research – shift workers tend, for example, to have greater difficulties with sleep onset, drowsy driving and excessive caffeine intake (Walia et al. 2011).

4.1.8 Barriers to progress

Well-designed, -targeted and -implemented initiatives can have a positive impact on the health and productivity of the workplace. However, the spread of such initiatives, whilst increasing, is not universal, and a number of practical barriers to developing workplace-health programmes have been identified across the literature that need to be considered:

- a lack of occupational health and safety infrastructure, particularly in SMEs;
- negative perception of occupational health requirements and benefits;
- inadequate cooperation by key stakeholders in the process;
- bureaucracy;
- knowledge deficits;
- lack of relevant skills and qualifications;
- belief systems;
- perceived need for major investment in a programme; and
- limited understanding of the potential benefits for the organisation.

4.2 What is happening in practice? Practice-based evidence

The available literature on what works in terms of workplace-wellbeing programmes includes numerous success stories from individual companies that highlight improvements based on a variety of indicators. However, there are relatively few scientific, peer-reviewed studies of effectiveness (Global CMO Network 2015), although many authors and commentators have identified key success factors, and there would appear to be substantial agreement about what is working in practice (Table E).

**Table E: Critical success factors for workplace interventions: Guiding Principles**

- The use of behaviour-change techniques to motivate and genuinely involve people in decision-making, i.e. creating solutions with them, often at large scale, and using social networks.
- Employees are empowered to take control, to get involved and make a difference, especially volunteering.
- The use of appropriate incentives – these could include financial, competitive or reputational incentives
- The environment and context needs to be structured so that choices are made automatically (‘nudge’ theory). Small changes can have a big impact, recognising that 90 per cent of decisions are made using ‘fast, instinctive and emotional thinking’.
- Connecting people to a bigger purpose beyond themselves and enabling them to be recognised for doing so: happiness lies in serving others.
- The use of digital channels as a key enabler for scaling, personalising and segmenting interventions.
- Thinking of health in a holistic way, incorporating psychological and physical health.
- Appreciating what matters to employees on a broader level, including the health of their families and communities as well as broader population health.
- Taking action early, enabling and supporting people to be healthy every day.
- Leadership matters – visible ownership and participation by CEO, CMO and senior leadership teams.
• The ability to demonstrate measurable return on investment that brings value to the company and improves health, wellbeing and productivity of employees.

Source: Global Chief Medical Officer Network 2015.

Below are case studies drawn from a range of organisations – large and small, public- and private-sector – and covering a variety of workplace-health priorities. These will also be updated over time. Note that more information on all the case studies, and sources for each, are available from C3 Collaborating for Health.

4.2.1 Sickness absence

Case study 1: National Grid

National Grid launched its initial wellbeing strategy in 2008, focusing on occupational health risk management, education, engagement in wellbeing programmes particularly focused on physical wellbeing, and weight management. These initial programmes provided a range of staff health information that was then used to inform future programmes and target and manage health and wellbeing more effectively. Workshops for senior managers were held to ensure high-level commitment. A network of Wellbeing Champions was developed to help to shape the wellbeing programme and to deliver messages into their part of the business. Wellbeing assessments based on improving lifestyle behaviours were added to the occupational health surveillance medicals for 3,000 field-based engineers. This helped reach a difficult-to-engage, predominantly male part of the workforce, who found information about blood pressure and cholesterol levels very interesting.

In this initial period the number of absence days dropped by 35,000, leading to a saving of £8.9 million over three years. An 8 per cent increase in employee engagement was recorded between 2008 and 2010. In 2012 a fresh strategy was agreed with the company board, focusing on three broad public health challenges: cardiovascular disease, cancer and type 2 diabetes. It also addressed the two main reasons for absence and underperformance in the company: mental wellbeing and musculoskeletal disorders.

4.2.2 Musculoskeletal disorders

Case study 2: Britvic

Examination of data as part of Britvic’s employee wellbeing programme showed that musculoskeletal disorders were a key cause of staff absence – so Britvic decided to implement a service to prevent, address and treat employees’ musculoskeletal problems. The service is delivered in collaboration with Britvic’s occupational health partners, and fast-tracks employees’ concerns via a telephone physiotherapist assessment that takes them through a stepped-care programme:

• Step 1: Assessment and self-help information
• Step 2: Case management and guided self-help
• Step 3: Telephone physiotherapy
• Step 4: Face-to-face treatment
• Step 5: Functional rehabilitation or specialist intervention

Advice on lifestyle and prevention is also available. Employees using the service have fed back positively, and Britvic has also seen a positive impact on employee sickness-absence rates.

As a result of the service, Britvic has seen a reduction in sickness absences and increased early-return-to-work rates and provided sensitive case-management to long-term absentees. From 2014, Britvic’s absence data shows that incidences of sickness for musculoskeletal reasons decreased from 104 to 91 and the number of sick days taken has steadily decreased from 826 in 2014 to 563 in 2016.
### 4.2.3 Mental health

**Case study 3: BT**

BT runs a range of workplace-health promotions under the umbrella vehicle ‘Work Fit’. This has also featured campaigns on mental health, the first of which, ‘Work Fit – Positive Mentality’, focused on the prevention of mental ill-health, as well as how to manage anxiety, stress and depression. As part of its mental-health framework, BT gives employees access to Cognitive Behavioural Therapy (CBT) and provides mental-health training for managers. The campaigns at BT have varied in size and content, but BT’s underlying messages — that everyone is responsible for their own mental health and, above all, that there needs to be a holistic approach to mental health — have remained unchanged.

20 per cent of BT’s line managers took part in a mental-health first-aid course entitled ‘Managing Mental Health’ in its first year, with a further 20 per cent trained in 2011. As of mid-2016, BT had trained nearly 8,000 line managers in improving their understanding of mental-health issues and enhancing their ability to support people facing mental ill-health.

### 4.2.4 Lifestyle and chronic diseases

**Case study 4: PepsiCo**

PepsiCo has implemented a Health and Wellness Strategy entitled the ‘Healthy Living Programme’. It focuses on four key areas: smoking cessation, diet & hydration, physical activity and mental wellbeing. Employees are offered a range of initiatives and benefits, including access to physical-activity opportunities, and healthy food options, as well as to telephone-based cognitive behavioural therapy (CBT). The strategy is aligned with PepsiCo’s senior management’s belief that ensuring that staff are healthy makes good business sense.

Benefits on offer to employees on diet & hydration include vouchers for the Slimming World programme and improved meal options in the staff canteen. For physical activity, PepsiCo has, for example, organised for staff to take part in physical-activity challenges such as the Global Corporate Challenge to increase their daily step count. Health kiosk screening has also been made available for employees to track their health. On mental wellbeing, PepsiCo is an active participant in mental-health awareness campaigns such as the Time to Talk Days; employees recorded over 28 hours of five-minute conversations about mental health with their colleagues in 2015. Telephone-based stepped-care CBT is available at nine UK sites and to field-based employees.

**Case study 5: Sandwell and West Birmingham Hospitals NHS Trust**

The Sandwell and West Birmingham Hospitals NHS Trust implemented a nicotine-replacement programme to help staff quit smoking, working with local smoking-cessation providers. The programme was first piloted from January to June 2014. It was initially funded for 100 staff members: 51 staff members joined, 11 dropped out and 29 per cent quit smoking after six months, which is similar to local quit rates with the use of nicotine-replacement treatment. The quit rate meant the programme was deemed successful and it has continued. In 2014, there were a total of 85 staff members on the programme and in 2015, 101 employees took part. A quit rate of about 30 per cent has been consistently reached throughout the programme.

The trust further secured funding for staff members to use the nicotine-replacement treatment annually over the next three years. In 2014, there were 85 employees on the programme in total and in 2015, 101 staff members took part. The satisfaction rate from the initial pilot was very high, with 93 per cent of staff stating they found the programme very useful. The quit rate has been consistent on the programme at around 30 per cent.
The trust has used a return on investment tool to calculate the cost-benefits of staff quitting smoking. It estimates that if 50 smoking employees, who are on a mid-band salary, and who take three cigarette breaks of 15 minutes every day quit smoking, this would save 9,000 productivity hours per year, which equals a cost benefit of £99,000.

Case study 6: Nestlé

Nestlé UK & Ireland offers free health checks to all of its employees through its delivery partner, Nuffield Health. Health physiologists come on-site to carry out the checks, which take into account the employee’s family history, current health and aims for the future. The checks encourage individual behaviour change and the aggregated anonymous health data collected is used to create targeted interventions. As a big global food manufacturer, Nestlé UK&I is very aware of the public-health issues that the population is facing, in particular type 2 diabetes, obesity and cardiovascular disease. Nestlé tries to facilitate personal behaviour change with its programme and provide targeted, evidence-based interventions. Before each health assessment is carried out, the employee fills out an extensive questionnaire about his/her own health, as well as family history. The health physiologist will look at this over before the assessment. It allows the physiologist to have an understanding of the employees’ current health status and their family history prior to the session so time is not taken up during the session filling in forms – but it also stimulates participants’ thinking about their current health status.

In September 2016, 18 months after the individual health checks launched, Nestlé is looking at the first set of comprehensive site-level data in order to create targeted interventions. So far, there has been a 75 per cent uptake across all sites. After being awarded the Royal Society for Public Health’s (RSPH) Health and Wellbeing Award in 2015, a partnership was established for the RSPH to act as an independent evaluator of Nestlé’s programme. The evaluation will be ongoing for three years from 2016; it will focus on the individual health checks and the results will be taken into consideration in further programme development.

Case study 7: Guy’s and St Thomas’ NHS Foundation Trust

Guy’s and St Thomas’ NHS Foundation Trust has provided a health and wellbeing programme for its staff since 2012 to improve employees’ physical and mental health, including initiatives to provide better work–life balance: flexible working hours or part-time working from home, as well as providing family and childcare support services for staff, including two workplace nurseries and childcare vouchers. Guy’s and St Thomas’ health and wellbeing programme is called ‘5 ways to a healthier YOU’, and work–life balance is one of the five themes. In 2012, the Trust was awarded ‘Excellence’ status in the London Healthy Workplace Charter.

The Trust introduced a staff dietician to whom staff can self-refer for advice on any dietary question including support with weight loss, and there is also a focus on promoting healthy food options. Physical activity is encouraged and the Trust encourages staff to act as role models to each other and patients. The Thomas Guy Club, a sports and social club, helps staff balance their work with taking time out to relax, get fit and have fun. The Trust also runs health and wellbeing roadshows where external stakeholders are invited to set up stalls. The roadshows run every couple of months, usually at one of the main sites over lunchtime. They are widely advertised to staff and focus on a specific health aspect. Previous examples include a physical-activity roadshow with local sports clubs providing taster sessions.

An audit of 178 NHS trusts in England found that Guy’s and St Thomas’ programme to improve staff health and wellbeing achieved impressive results. The audit, by the Royal College of Physicians, showed that the overall score for improving staff health and wellbeing increased from 54.7 (out of 100) in 2010 to 92.5 in 2013.
4.2.5 Supporting SMEs

**Case study 8: Health and Wellbeing Local Business Partnership**

The Health and Wellbeing Local Business Partnership (HWLBP) was a pilot workplace health project in which three large companies – Mars, Novo Nordisk and Unilever – extended their workplace-health programmes to employees of small- and medium-sized (SMEs) businesses in the locality. Each large company implemented a different aspect of its workplace-health programme in each SME. The project had positive health outcomes for the SME employees and increased local engagement for the large companies. Challenges, however, included lack of adequate resources throughout the project, inconsistent and sometimes low levels and engagement, as well as difficulty evaluating the project. In 2016, Mars continues to engage with local SMEs and this case study will focus mainly on its work.

Currently, Mars is partnering on a series of breakfast seminars with the Slough Working Well initiative. The seminars take place three times a year, are free to attend for local SMEs, and feature specialist speakers on a variety of health topics, such as physical conditions, psychological conditions, health bias in recruitment, workplace wellbeing and employment law around health. The seminars include lectures as well as more interactive sessions, case studies and question time. Mars reports that its continued engagement has received positive feedback. Feedback received has included that participants appreciate having tangible things to take away with them following the seminars, that the speakers are very knowledgeable and that it is good to hear what big companies in the local area are doing.

**Case study 9: Forster Communications**

Forster Communications believes that every employer has a responsibility to encourage staff wellbeing – physical, mental and social health – and that it also makes good business sense. Forster has implemented a scheme called Forster Well, which incentivises staff to be healthier. It covers physical and mental health, and also includes social engagement and community support. A majority of staff members have participated in the scheme and the company has seen positive effects in the workforce, with an overwhelmingly positive response from participating employees. To avoid any new scheme being imposed from the top down, Forster decided to run a competition in which staff pitched their best ideas for a workplace-health scheme to the managing director. The Forster Well scheme has evolved over the years up to the present day (2016), but the branding remains the same. It is also linked with other initiatives such as professional training, so that it is embedded in work and does not exist in isolation.

Following the initial pilot of the Forster Well scheme, 76 per cent of employees reported that they had improved their fitness, social connections, cultural fulfilment and/or community engagement. In an anonymous staff survey, the scheme was cited as an indicator that Forster cares about health and wellbeing of their staff, and over 70 per cent stated that it would be detrimental to their time at Forster if the scheme was removed. After Forster Well had been running for one year, the first quarter in the second year saw the strongest uptake yet with 86 per cent of staff claiming stamps and taking time to focus on their wellbeing.

4.2.6 Developing leadership capacity and staff engagement

**Case study 10: Birmingham City council**

After results from a staff survey showed very low levels of engagement among employees at Birmingham City Council (BCC), the public-sector organisation decided to implement a new employee-engagement strategy based on its core values of Belief, Excellence, Success and Trust (BEST). The programme used employee-led workshops to engage with staff, installing in them a sense of empowerment to change things, as well as responsibility and accountability for their work. After three years of the BEST programme, major improvements in staff engagement levels could be seen across the organisation. BEST
officially finished in 2009, but the BCC has sought to build on its legacy and continues to actively engage its staff.

As of 2009, the 1,800 BEST workshop team leaders had trained and run workshops for a further 23,000 staff. More than 75 per cent of staff who took part in the BEST workshops said they felt more engaged and motivated at work. The percentage of staff who said they felt motivated in their job rose from 56 per cent in 2006 to 83 per cent in 2008. In 2009, 90 per cent of staff reported that they felt ‘proud’ to work at BCC, up from 50 per cent in 2006. In total, the BEST programme generated over 6,000 innovations and service improvements. The estimated productivity gains were £6 million. BCC also won ‘Outstanding Employee Engagement Strategy’ at the 2009 HR Excellence Awards.

Case study 11: Serco Health

In 2013 Serco Health implemented a ‘Health & Wellbeing Champions Programme’ in six key sites (hospitals). It focused on poor diet (including the harmful use of alcohol), physical inactivity and tobacco use, and was organised in partnership with the Community Health Learning Foundation and C3 Collaborating for Health. Health Champions were recruited from Serco Health employees, and received training and resources. Each different site focused on a different health challenge, but Health Champions had common responsibilities to support delivery of health-promoting activities, motivate staff to take part in activities, direct people to local health services and track progress. Examples of activities and initiatives delivered include sports clubs, health-awareness presentations, fundraising walks/runs, free fruit, and weight-loss challenges.

And the programme is continuing, including a system in which new champions have a more experienced ‘buddy’. Step-count challenges have been successfully combined with charitable fundraising, and there have been special restaurant events and cardiac checks. Some sites have a health and wellbeing newsletter, and team briefings and technology have been used.

Impact includes reported health benefits to both Champions and staff, empowerment of Champions to make a difference in the workplace, and new relationships built within the company. Serco Health is seeing the benefits of the programme, and is also beginning to use an absence management system.

5. Challenges and gaps

5.1 Promoting health-seeking behaviours throughout the workforce

Sir Michael Marmot’s strategic review of health inequalities in England (Marmot 2010) concluded that to reduce the steepness of the social gradient in health, actions must be universal, ‘but with a scale and intensity that is proportionate to the level of disadvantage’. This principle of ‘proportionate universalism’ has to be applied right across the different areas of society if it is to be successful, including the workplace, where there should be ‘fair employment and good work for all’.

Worksites not only provide longitudinal access to a large number of people but have the potential for multi-level ‘ecological’ interventions directed at individual, organisational and environmental determinants of health behaviours. The evidence suggests that a well-implemented multi-component health-promotion programme can not only improve the health status of participants but can also improve work-related outcomes such as productivity and sickness-absence rates. This creates a sound argument for the financial sustainability of workplace wellbeing programmes, particularly those that encompass initial resource investment and top-level managerial support. But what works, and where, and for whom? Despite the growing body of evidence, and the vast number of toolkits coming onto the marketplace, this remains a substantial black hole. No two organisations are the same – and within each organisation the needs of different strata of employees may vary greatly.
Health-promotion programmes have long been premised on the idea that providing knowledge about causes of ill health and choices available will go a long way towards promoting a change in individual behaviour and lifestyle choices. However, there is growing recognition that providing **education and knowledge at the individual level is not sufficient** in itself to promote a change in behaviour. Proponents of social-marketing programmes argue that targeting information, ensuring the intervention has a clear behavioural goal, and a visible salience to the target audience has greater effects. Constantly developing modern technology offers unprecedented opportunities to personalise health information and advice, as well as to monitor individual changes. But it also brings fears about the potential for such targeted information to be ill-used, whether by accident or design. It is widely agreed that in order to be successful, projects must engage and involve employees at the planning stages and demonstrate that their views are being listened to. Initiatives must be tailored to their needs and there has to be genuine and visible support from management right through the organisation.

In the UK, there are just over 31 million people in the workforce (ONS 2015b), with the rate of employment varying between age groups, from just over 80 per cent of 25–49-year-olds to 10.5 per cent of those aged over 65 (Table F).

<table>
<thead>
<tr>
<th>Age range</th>
<th>16–17</th>
<th>18–24</th>
<th>25–34</th>
<th>35–49</th>
<th>50–64</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment rate (%)</td>
<td>25.7</td>
<td>62.5</td>
<td>81.7</td>
<td>83.6</td>
<td>70.0</td>
<td>10.5</td>
</tr>
</tbody>
</table>

Source: ONS 2016

Statistics on working days lost due to self-reported illness show that the number of working days off per worker rises, on average, with age – those aged over 55 have more than three times the number of days lost to sickness than those aged 16–24 (Table G). This is true for both genders.

However, throughout the rapid review that informed this briefing paper, there was limited evidence identified to suggest that consideration had been taken to what the information and support needs might be for each of the **age groups or within different ethnic communities**. By and large, interventions treat the workforce as a coherent body. This might, indeed, be the right approach – but, as some of the studies showed, targeted and segmented interventions had greater long-term efficacy and sustainability (e.g. Jensen 2011).

<table>
<thead>
<tr>
<th>Age group</th>
<th>Averaged estimated days lost (1000s)</th>
<th>Average days lost per worker</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>23,025</td>
<td>0.94</td>
</tr>
<tr>
<td>16–24</td>
<td>1,036</td>
<td>0.41</td>
</tr>
<tr>
<td>25–34</td>
<td>3,452</td>
<td>0.59</td>
</tr>
<tr>
<td>35–44</td>
<td>5,456</td>
<td>0.94</td>
</tr>
<tr>
<td>45–54</td>
<td>7,170</td>
<td>1.15</td>
</tr>
<tr>
<td>55+</td>
<td>5,912</td>
<td>1.45</td>
</tr>
</tbody>
</table>

Source: Labour Force Survey 2015

Note: Estimated days (full-day equivalent) off work and average days lost per (full-time equivalent) worker due to self-reported illness caused or made worse by work, by age and gender, for people working in the last 12 months, averaged 2011/12, 2013/14, 2014/15 (no data collected 2012/13).
5.2 Monitoring and evaluation

Throughout the rapid-review process, it became apparent that despite the high levels of interest in the political and practical spheres, there is, to date, limited high-quality intervention research focusing on workplace-health interventions (see also section 3.1.2). The initial search strategy aimed to include only systematic reviews – but it became apparent there had not been many, necessitating the inclusion of a broader range of literature. In many cases, the information available did not provide sufficient data to establish the quality of the research/review reported. The information provided in this report therefore provides only an insight into the range of activity in this area, rather than a judgement on the quality of the work which has been undertaken and its applicability in other settings.

This is consistent with the advice given by NICE, which highlighted serious gaps in available evidence (see, for example, NICE 2015a), and has set out proposals for research across a number of key areas including:

- effectiveness and cost-effectiveness of interventions and line-manager training;
- how effectiveness can be measured;
- how different leadership styles affect health and wellbeing of employees;
- the impact of organisational culture; and
- the contribution of occupational health, human resources and health and safety professionals in supporting line managers.

NICE also wants to see academic journals publishing more research showing interventions that do not work as well as those that do.

Even among the workplace health and wellbeing programmes that are subject to some form of monitoring and evaluation at various stages of development, implementation and completion, what is measured in terms of engagement and success tends to vary depending on the aim and content of each programme. All the case studies in section 4.2 include some form of evaluation – but follow the general finding that evaluation varies greatly.

When it comes to formal, independent assessment of what works, there is surprisingly little evidence available, given the extent to which workplace initiatives are increasing in number worldwide. This suggests that the study of workplace health and employee health-seeking behaviour in the workplace remains a substantial gap in the literature, where further work is needed to inform robust targeted interventions. With such a limited dataset upon which to draw, there is a risk in reducing the findings from the available papers to generalisations that contribute little to our understanding of the knowledge, attitudes and behaviours either of employees or of their employing organisations.

Careful evaluation – and reporting – is a way to embed health and wellbeing firmly within the business aims of organisations. A ‘roadmap for investors, companies and reporting platforms’ on health reporting (Vitality 2016) suggests metrics that can be incorporated in reporting (such as the annual report or sustainability report), covering areas of governance (leadership and culture), management (programmes, policies and practice) and evidence of success (health risks and outcomes). Adopting reporting on these metrics would help companies to measure impact of programmes, as well as enabling investors to exert pressure on companies to include health metrics (potentially rewarding or penalising action/inaction).

There are many examples of organisations investing in the health and wellbeing of their staff, and good practice now needs to be recognised, shared, built on, extended into local economies, and embedded into the practices of all employing organisations. The case for investment has been made and is widely accepted, but the evidence for action could still be more robust, and more systematically followed. In many cases, the evidence would seem to suggest that a lack of capacity at workplace level (identified in Bevan 2010) continues to undermine health in the workplace. What is needed is the development of simple, consistent, well-resourced and business-friendly (and evidence-based) actions to drive positive health benefits.
5.3 A lifecourse approach?

The workforce is not heterogeneous, and specific needs of subsections of the workforce may need to be considered more systematically to optimise health gains and increase productivity, building on a general ‘culture of health’ and engagement with all employees.

One area that might be worth further consideration is whether adopting a lifecourse approach could add value – tailoring workplace-health activities to the different needs of different stages of life. The needs of older workers need to be addressed if staff are to be encouraged to work longer (and this group is underserved in the research literature (Cox 2014)), while younger people may need a different intervention to ease their transition into the workplace. Regulations for young people in the workplace already reflect evidence that young people lack experience and may be unable effectively to assess the risks to their health and safety: people under the age of 24 are more likely to have a serious accident at work than older adults. However, older people, according to HSE figures, are less likely to have an accident, but if they do, it is more likely to be fatal. The relevance and potential impact of a lifecourse approach should be considered, as this may provide a better basis for considering the cumulative effect of work on population health, and the efficacy of work-related health programmes, in relation to gender and ethnicity cohorts, as well as age. This could, in turn, inform the development of targeted health-improvement initiatives/practices within the workplace.

6. Talking points

- How can we consistently share what works – along with evidence of what doesn’t!
- How can a ‘culture of health’ be embedded and sustained?
- How can health inequity be tackled through the workplace?
- Could a lifecourse approach – tailoring workplace-health activities to the different needs of different stages of life – usefully be adopted?
- What are the new research methods needed to provide timely feedback at all stages of design and implementation of rapidly changing workplace programmes?
Annex 1: Key players

Employers wanting to get started on workplace wellbeing initiatives, or wishing to ensure that their current programmes are based on the latest thinking, will find a wealth of support and practical resources available to them, ranging from toolkits that are condition specific to accreditation schemes and awards. The resources listed below are selected from the large number available, and a short description, URL and (where appropriate) important publications of the organisations appear in the DebateGraph mapping that accompanies this scoping project. (Contact hester.rice@c3health.org for more information.)

*****

- ASH – Action on Smoking and Health
- Asthma UK
- British Heart Foundation
- Britain’s Healthiest Workplace
- Business Healthy
- Business in the Community
- CEDAR – Centre for Diet and Activity Research
- Centre for Ageing Better
- Centre for Longitudinal Studies
- C3 Workplace Health Network
- Collaborate
- Department of Health
- Early Intervention Foundation
- Economic and Social Research Council
- European Agency for Safety and Health at Work
- European Network for Workplace Health Promotion
- Faculty of Public Health
- FitFans
- Fit for Work Service
- Five Steps to a Successful Workplace Wellness Program toolkit
- Global Healthy Workplace Award
- Groundwork Community Spaces Programme
- Healthy London Partnership (NHS)
- Healthy New Towns (NHS)
- Health and Safety Executive
- Health and Work Unit
- Health Works (Scotland)
- Healthy Working Wales
- Institute of Alcohol Studies
- Institute for Health and Productivity Management
- Institute of Employment Studies
- Institution of Occupational Safety and Health
- International Diabetes Federation
- International Labor Organization
- Investors in People
- Joseph Rowntree Foundation
- LGA Knowledge Hub
- Living Streets
- Local Government Improvement and Development
- London Healthy Workplace Charter
- Medical Research Council
- Mental Health Foundation
- MIND
- National Centre for Health and Clinical Excellence (NICE)
- National Institute of Mental Health
- NIOSH-National Institute for Occupational Safety and Health (Centre for Disease and Control Prevention)
- Public Health England
- RAND Europe
- Royal College of Midwives
- Royal College of Nursing
- Royal College of Physicians
- Royal College of Psychiatrists
- Royal Society for Public Health
- Scottish Centre for Healthy Working Lives
- SHINE HIT – Supporting Healthy Inclusive Neighbourhood Environments
- The Age and Employment Network
- The Work Foundation
- Trades Union Congress
- Understanding Society
- Vitality Institute Commission on Health Promotion and the Prevention of Chronic Disease in Working-Age Americans 2014
- Wellcome Trust
- What Works Centre for Wellbeing
- WHO Healthy Workplaces Model
- World Health Organisation
- Workplace Wellbeing Charter
- Workplace Wellbeing Tool
## Annex 2: Evidence tables

### Table 1: Return on investment/business case for workplace health investment

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Overview</th>
<th>Reference</th>
<th>Conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs and savings associated with workplace wellness programmes</td>
<td>Critical meta-analysis of the literature on costs and savings associated with workplace wellness programmes (US study). Includes 32 individual studies, of which 22 looked at absenteeism, 22 looked at healthcare costs, and 8 looked at both.</td>
<td>Baicker et al. 2010</td>
<td>Found that medical costs fall by about $3.27 for every dollar spent on wellness programmes and that absenteeism costs fall by about $2.73 for every dollar spent. Although further exploration of the mechanisms at work and broader applicability of the findings is needed, this return on investment suggests that the wider adoption of such programmes could prove beneficial for budgets and productivity as well as health outcome.</td>
</tr>
<tr>
<td>Review of possible methods for calculating ROI in health interventions in the workplace</td>
<td>Review of methods for calculating return on investment for health interventions in the workplace.</td>
<td>Rydlewksa-Liszkowska 2010</td>
<td>There are two main types of methods: methods for measuring economic relations between the work environment and enterprise management and methods for the economic analysis of investments in the work environment and occupational health. Methods for assessing economic effectiveness of working conditions limited to measurements of costs of absenteeism at work are also used. One of the methodological options in this regard is ROI for occupational health.</td>
</tr>
<tr>
<td>ROI on investment in initiatives to address migraines and other headaches</td>
<td>Analysis of data from National Comorbidity Survey Replication (n = 9,282). 12-month severe or persistent migraines and other headaches were assessed with comorbid 12-month mental and physical disorders using the WHO Composite International Diagnostic Interview. Work performance was assessed using the WHO Health and Work Performance Questionnaire.</td>
<td>Kessler et al. 2010</td>
<td>Significant associations of these conditions with work disability disappeared with controls for comorbid disorders, but severe or persistent migraines continued to predict work loss days even with controls. Individual-level and societal-level annual human capital values were $1165 and $9.3 billion for this subset of migraines. Roughly 20% of these associations were due to comorbidity, 60% to direct effects and 20% to indirect effects through temporally secondary comorbidities. These strong associations suggest that workplace interventions for severe or persistent migraines might have a positive ROI for employers.</td>
</tr>
<tr>
<td>Intervention</td>
<td>Overview</td>
<td>Reference</td>
<td>Conclusions</td>
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</tr>
<tr>
<td>Mental health and ROI</td>
<td>Systematic review – multiple settings. Workplace was only one of the settings considered. Not clear how many papers were found on workplace.</td>
<td>Mcdaid and Park 2011</td>
<td>In the workplace an economic return on investment in a number of comprehensive workplace-health promotion programmes and stress management projects (largely in the United States) was reported, while group-based exercise and psychosocial interventions are of potential benefit to older people. Many gaps remain; a key first step would be to make more use of the existence evidence base on effectiveness and model mid- to long-term costs and benefits of action in different contexts and settings.</td>
</tr>
<tr>
<td>Insomnia, workplace accidents, and potential ROI for interventions</td>
<td>A national cross-sectional telephone survey (65.0% cooperation rate) of commercially insured health plan members selected from the more than 34 million in the HealthCore Integrated Research Database; 4,991 employed AIS respondents. Costly workplace accidents or errors in the 12 months before the AIS interview were assessed with one question about workplace accidents ‘that either caused damage or work disruption with a value of $500 or more’ and another about other mistakes ‘that cost your company $500 or more’.</td>
<td>Shahly et al. 2012</td>
<td>Insomnia had a significant odds ratio with workplace accidents and/or errors controlled for other chronic conditions (1.4). The odds ratio did not vary significantly with respondent age, sex, educational level or comorbidity. The average costs of insomnia-related accidents and errors ($32,062) were significantly higher than those of other accidents and errors ($21,914). Simulations estimated that insomnia was associated with 7.2% of all costly workplace accidents and errors and 23.7% of all the costs of these incidents. These proportions are higher than for any other chronic condition, with annualised US population projections of 274,000 costly insomnia-related workplace accidents and errors having a combined value of US $31.1 billion. Effectiveness trials are needed to determine whether expanded screening, outreach, and treatment of workers with insomnia would yield a positive return on investment for employers.</td>
</tr>
</tbody>
</table>
Table 2: Workplace interventions to address sickness absence generally/promote return to work

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Overview</th>
<th>Reference</th>
<th>Conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interventions to facilitate return to work (general conditions)</td>
<td>Systematic literature review using seven databases (period: 1994–2010). In total, 23 articles were included and assessed for their methodological quality.</td>
<td>Hoefsmit et al. 2012</td>
<td>Early interventions, initiated in the first six weeks of the RTW (return-to-work) process were scarce. These were effective to support RTW though. Multidisciplinary interventions appeared effective to support RTW in multiple target groups (e.g. back pain and adjustment disorders). Time-contingent interventions in which activities followed a predefined schedule were effective in all physical complaints studied in this review. Activating interventions such as gradual RTW were effective in physical complaints. They have not been studied for people with psychological complaints. Early and multidisciplinary intervention and time-contingent, activating interventions appear most effective to support RTW.</td>
</tr>
<tr>
<td>Pre-employment health checks</td>
<td>Systematic Cochrane review – included two RCTs, five CBA studies and two ITS. Concluded overall quality of evidence was low.</td>
<td>Mahmud et al. 2010</td>
<td>There is very low-quality evidence that pre-employment examinations that are specific to certain jobs or health problems could reduce occupational disease, injury, or sickness absence. This supports the current policy to restrict pre-employment examinations to job-specific examinations. More studies are needed that take into account the harms of rejecting job applicants.</td>
</tr>
<tr>
<td>Pre-employment health checks</td>
<td>Systematic Cochrane literature review. Identified 11 studies for inclusion. Overall concluded quality of evidence was low (update of 2010 paper)</td>
<td>Schaafsma et al. 2016</td>
<td>Health examinations that focus on health risks of particular jobs may be effective. Adequately dealing with potential health risks by changing work tasks or physical fitness training may also be effective. We need more and better quality evaluation studies. Not allowing people to work in certain jobs may have effects on their health. It also costs them money. Future research should assess both</td>
</tr>
<tr>
<td>Intervention</td>
<td>Overview</td>
<td>Reference</td>
<td>Conclusion</td>
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</tr>
<tr>
<td>Counselling and job re-entry</td>
<td>Focus is on job re-entry. This paper synthesises evidence from 32 studies of individual-oriented interventions; that is, ones based on the strategy of supporting and improving potential employees (as distinct from ones that aim to improve the employment environment).</td>
<td>Clayton et al. 2010</td>
<td>Selection into these programmes of more work-ready claimants creates difficulties in judging to what extent the employment effects reported in the quantitative studies derive from the programmes or from the motivations of the individuals.</td>
</tr>
<tr>
<td>Post-injury return to work: predictors</td>
<td>Studies included in this systematic literature review tracked participants’ return to work status over a minimum of three months, identified either demographic, psychosocial or general injury predictors of poor return to work outcomes and included a heterogeneous sample of workplace injuries. Not clear how many studies were included.</td>
<td>Street and Lacey 2015</td>
<td>Identified predictors of poor return-to-work outcomes included older age, female gender, divorced marital status, two or more dependent family members, lower education levels, employment variables associated with reduced labour market desirability, severity or sensitive injury locations, negative attitudes and outcome perceptions of the participant. There is a need for clear and consistent definition and measurement of return to work outcomes and a holistic theoretical model integrating injury, psychosocial and demographic predictors of return to work. Through greater understanding of the nature of factors affecting return to work, improved outcomes could be achieved.</td>
</tr>
<tr>
<td>Hearing disorders</td>
<td>Systematic review: A total of 18 studies were assessed as relevant and included in this review, no assessment made of scientific quality as part of inclusion criteria. Studies focused on hearing difficulties as cause of sickness absence, rather than on strategies to ameliorate hearing difficulties to facilitate return to work.</td>
<td>Friberg et al. 2012</td>
<td>There are few studies published on associations between hearing difficulties or other ear-related diagnoses and sick leave and/or disability pension and there are very large variations between the studies regarding design, study groups, analyses and outcome measures. Nevertheless, all studies that disclosed results on associations between hearing difficulties or other ear-related diagnoses and sick leave or disability pension reported positive associations.</td>
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Table 3: Workplace interventions to address musculoskeletal disorders

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<th>Intervention</th>
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<th>Conclusion</th>
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<td>Return to work after sickness absence</td>
<td>Systematic review: 12 articles with quantitative information on the effect of ergonomic interventions on return to work were included.</td>
<td>Elders et al. 2000</td>
<td>In eight studies, introduction of a back-school programme was the preferred intervention, combining exercise and functional conditioning, and training in working methods and lifting techniques. In seven out of eight back-school studies, return to work was significantly better in the intervention group. Intervention after 60 days, in the sub-acute phase of back pain, showed the most promising results. Few studies were performed to assess the outcome return to work after ergonomic intervention. However, there is evidence that intervention in the sub-acute phase of back pain is preferable.</td>
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<tr>
<td>Workplace management of upper limb disorders</td>
<td>Systematic review of English articles of five databases (carpal tunnel syndrome and non-specific arm pain only) and Cochrane Library. Study inclusion criteria were randomised controlled trials, cohort studies or systematic reviews employing any workplace intervention for workers with carpal tunnel syndrome, non-specific arm pain, extensor tenosynovitis or lateral epicondylitis 1,532 abstracts identified, 28 papers analysed but only 4 papers met quality criteria (SIGN).</td>
<td>Dick et al. 2011</td>
<td>There was limited evidence that computer keyboards with altered force displacement characteristics or altered geometry were effective in reducing carpal tunnel syndrome symptoms. There was limited, but high-quality, evidence that multidisciplinary rehabilitation for non-specific musculoskeletal arm pain was beneficial for those workers absent from work for at least four weeks. In adults with tenosynovitis there was limited evidence that modified computer keyboards were effective in reducing symptoms. There was a lack of high-quality evidence to inform workplace management of lateral epicondylitis. Further research is needed focusing on occupational management of upper limb disorders. Where evidence exists, workplace outcomes (e.g. successful return to pre-morbid employment; lost working days) are rarely addressed.</td>
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<tr>
<td>Musculoskeletal pain Workplace involvement in return-to-work initiatives</td>
<td>Systematic review of controlled intervention studies and economic evaluations. 16 electronic databases and grey literature sources were searched, and reference and citation tracking was performed on included publications.</td>
<td>Carroll et al. 2010</td>
<td>Interventions involving employees, health practitioners and employers working together, to implement work modifications for the absentee, were more consistently effective than other interventions. Early intervention was also found to be effective. The majority of trials were of good or moderate quality. Economic evaluations indicated that interventions with a</td>
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<tr>
<td><strong>Musculoskeletal interventions</strong></td>
<td>10 articles were found reporting nine trials from Europe and Canada, and four articles were found evaluating the cost-effectiveness of interventions</td>
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<td>workplace component are likely to be more cost effective than those without. Stakeholder participation and work modification are more effective and cost effective at returning to work adults with musculoskeletal conditions than other workplace-linked interventions, including exercise.</td>
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<td><strong>Manual handling advice and devices</strong></td>
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<td><strong>Musculoskeletal pain</strong></td>
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<td><strong>Workplace interventions for neck pain</strong></td>
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<td><strong>Musculoskeletal pain</strong></td>
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<td>The aim of this review was to assess the effect of physical conditioning programmes, compared to no or alternative interventions, in reducing time lost from work among patients with back pain</td>
<td>Systematic review: included 23 RCT with 3,676 participants, with 13 studies having a low risk of bias.</td>
<td>Schaaftsma et al. 2011</td>
<td>The effectiveness of physical-conditioning programmes in reducing sick leave for workers with back pain remains uncertain. For acute back pain, these programmes probably have no effect; for sub-acute back pain, the effect is unclear, and for chronic back pain there is a small effect at one-year follow-up that does not last in the long run. Remaining heterogeneity could not be explained by meta-regression. A better understanding of the mechanism behind physical</td>
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<td>Physical conditioning as part of a return-to-work strategy to reduce sickness absence for workers with back pain</td>
<td>Updated systematic review by Cochrane included 41 articles reporting on 25 RCTs with 4,404 participants.</td>
<td>Schaafsma et al. 2013</td>
<td>The effectiveness of physical conditioning as part of a return-to-work strategy in reducing sick leave for workers with back pain, compared to usual care or exercise therapy, remains uncertain. For workers with acute back pain, physical conditioning may have no effect on sickness absence duration. There is conflicting evidence regarding the reduction of sickness-absence duration with intense physical conditioning versus usual care for workers with sub-acute back pain. It may be that including workplace visits or execution of the intervention at the workplace is the component that renders a physical conditioning programme effective. For workers with chronic back pain physical conditioning has a small effect on reducing sick leave compared to care as usual after 12-month follow-up. To what extent physical conditioning as part of integrated care management may alter the effect on sick leave for workers with chronic back pain needs further research.</td>
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<td>Musculoskeletal pain</td>
<td>Clinical perspective on how to address occupational factors in the management of low back pain</td>
<td>Shaw et al. 2011</td>
<td>Primary recommendations include: (1) administration of self-report questionnaires to assess a client’s perspective of physical job demands (2) client-centred interviewing to highlight individual return-to-work concerns (3) early discussions with clients about possible job modifications, and (4) incorporation of clients’ workplace concerns in progress reports and summaries. These strategies may improve low back-pain outcomes by encouraging effective communication with key stakeholders and by developing clients’ ability to resolve obstacles to returning to work.</td>
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<td>The influence of employment social support type (e.g. co-worker, supervisor, general support) on risk of occurrence of low back pain, and prognosis (e.g.</td>
<td>Systematic search of seven databases for prospective or case-control studies reporting findings on employment social support in populations with non-specific back pain. 32 articles were included that describe 46 findings on the effect of employment social</td>
<td>Campbell et al. 2013</td>
<td>Findings show that there is no effect of co-worker, supervisor or general work support on risk of new-onset back pain. Weak effects of employment support were found for recovery and return to work outcomes; greater levels of co-worker support and general work support were found to be associated with less time to recovery or return to work. The evidence suggests that the association between employment support and</td>
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recovery, return-to-work status) for those who have low back pain

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<td>recovery, return-to-work status) for those who have low back pain</td>
<td>support on risk of and prognosis of back pain.</td>
<td>Varatharajan et al. 2014</td>
<td>prognosis may be subject to influence from wider concepts related to the employment context. This review discusses these wider issues and offers directions for future research.</td>
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<tr>
<td>The effectiveness of work disability prevention (WDP) interventions in workers with neck pain, whiplash-associated disorders (WAD) or upper extremity disorders</td>
<td>Systematic review: of the 6,359 articles retrieved, 16 randomised controlled trials were eligible for critical appraisal and five were admissible.</td>
<td>Varatharajan et al. 2014</td>
<td>At present, no firm conclusions can be drawn regarding the effectiveness of WDP interventions for managing neck pain, WAD and upper-extremity disorders. The review suggests a return-to-work coordination programme is more effective than clinic-based work hardening. Also, adding computer-prompted breaks to ergonomic and workplace interventions benefits workers’ recovery. The current quality of evidence does not allow for a definitive evaluation of the effectiveness of ergonomic interventions.</td>
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<tr>
<td>Appraisal of instruments to assess psychosocial readiness to return to work</td>
<td>Systematic review: identified eight studies using six different instruments</td>
<td>Gray et al. 2011</td>
<td>The six instruments were: Back Disability Risk Questionnaire (BDRQ); Occupational Role Questionnaire (ORQ); Obstacles to Return to Work Questionnaire (ORTWQ); Psychosocial Aspects of Work Questionnaire (PAWQ); Vermont Disability Prediction Questionnaire (VDPQ); and Modified Work Adaptation, Partnership, Growth, Affection and Resolve. Limited psychometric testing had been performed on the instruments, and solely by the original developers. None of the instruments, in their current stage of development, can be recommended as Blue Flags assessment instruments. The ORTWQ was the only instrument that showed adequate psychometric properties but was not considered clinically feasible in its present format.</td>
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<td>Mental health and long-term disability</td>
<td>Systematic review selected seven articles with a publication date from January 1990 to March 2009, describing longitudinal cohort studies with a follow-up period of at least one year.</td>
<td>Cornelius et al. 2011</td>
<td>This systematic review identifies a number of prognostic factors, some more or less consistent with findings in related literature (mental health factors, age, history of previous sickness absence, negative recovery expectation, socio-economic status, unemployment, quality and continuity of occupational care), while other prognostic factors (gender, level of education, sole breadwinner, supervisor support) conflict with existing evidence.</td>
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<tr>
<td>Economic evaluation of mental-health interventions</td>
<td>A systematic search was conducted in relevant databases. Included economic evaluations were classified into two groups based on type of intervention: (1) aimed at prevention or treatment of mental health problems among workers or (2) aimed at return to work (RTW) for workers sick-listed from mental health problems. The quality of the included economic evaluations was assessed using the Consensus Health Economic Criteria list. 10 economic evaluations were included in this systematic review.</td>
<td>Hamberg-van Reenen et al. 2012</td>
<td>Due to a limited number of economic evaluations on worksite mental-health interventions of which a majority was lacking methodological quality or lacking evidence, only a tentative conclusion can be drawn from the results of this systematic review. Worksite interventions to prevent or treat mental health problems might be cost-effective, while those RTW interventions that included a full economic evaluation aimed at depressed employees do not seem to be cost-beneficial. More high-quality economic evaluation studies of effective worksite mental health interventions are needed to get more insight into the economic impact of worksite mental-health interventions.</td>
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<tr>
<td>Work-related post-traumatic stress disorder (PTSD)</td>
<td>Systematic literature search. The articles were independently screened based on inclusion and exclusion criteria, followed by a quality assessment of all included articles. The systematic search identified seven articles for inclusion in the review. These consisted of six research articles and one systematic review. Study populations included police officers, public transportation workers, and employees injured at work.</td>
<td>Stergiopoulos et al. 2011</td>
<td>Results suggest that work-related interventions show promise as effective strategies for promoting return to work in employees who acquired PTSD in the workplace. Further research is needed in this area to determine how different occupational groups with specific types of traumatic exposure might respond differently to work-tailored treatments.</td>
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<td>Counselling</td>
<td>Systematic review of literature. Not clear how many studies were included – overview table in papers cites 10 studies, but this is not explicit in text. Conclusion notes the research base is not sufficiently extensive to determine whether different approaches, numbers of sessions or models of service delivery (e.g. external EAP vs. in-house service) are associated with differential levels of effectiveness. Methodological challenges were identified with a number of studies – e.g. around selection of clients, lack of standardised procedures, etc.</td>
<td>McLeod 2010</td>
<td>The findings of this review suggest that workplace counselling is generally effective in alleviating symptoms of anxiety, stress and depression in the majority of workplace clients. In addition, counselling interventions have been found, in the majority of studies which have examined this factor, to reduce sickness absence rates in clients by up to 60 per cent, and counselling has a moderate impact on job commitment, work functioning, job satisfaction and substance misuse.</td>
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<tr>
<td>Managing stress at work</td>
<td>Synthesises the evidence from existing systematic reviews published between 1990 and July 2011. In total, 23 systematic reviews included 499 primary studies; there were 11 meta-analyses and 12 narrative reviews.</td>
<td>Bhui et al. 2012</td>
<td>Individual interventions (like CBT) improve individuals’ mental health. Physical activity as an organisational intervention reduces absenteeism.</td>
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<tr>
<td>Supporting return to work</td>
<td>A systematic review of websites, books and journal articles was conducted to develop a 387-item survey containing strategies that organisations might use to support those returning to work after common mental disorders. Three panels of Australian experts (66 health professionals, 30 employers and 80 consumers) were recruited and independently rated the items over three rounds, with strategies reaching consensus on importance written into the guidelines. The participation rate across all three rounds was 60.2% (57.6% health professionals, 76.7% employers, 56.3% consumers). 308</td>
<td>Reavley et al. 2012</td>
<td>The endorsed strategies provided information on policy and procedures, the roles of supervisors, employees and colleagues in managing absence and return to work, and provision of mental health information and training. The guidelines outline strategies for organisations supporting those returning to work after common mental disorders.</td>
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<td>Return to work, focusing particularly on veterans</td>
<td>Systematic literature review</td>
<td>Van Til et al. 2013</td>
<td>Comprehensive literature review found limited knowledge about how to integrate people with mental disorders into a new workplace after a prolonged absence (&gt; 1 year). Even more limited knowledge was found for veterans.</td>
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<tr>
<td>Championing mental health at work</td>
<td>Explores data from the thematic evaluation of the Mental Health and Employment project strand within the Altogether Better programme being implemented in England in the Yorkshire and Humber</td>
<td>Robinson et al. 2014</td>
<td>The role of the 'business champion' emerged as crucial to these interventions and therefore, secondly, the paper examines how champions' potential to make a difference depends on the work settings and their existing roles, skills and motivation. In particular, champions can proactively coordinate project strands, embed the project, encourage participation, raise awareness, encourage changes to work procedures and strengthen networks and partnerships. The paper explores how these processes can facilitate changes in organisational culture. Challenges of implementation are identified, including achieving leverage with senior management, handover of ownership to fellow employees, assessing impact and sustainability.</td>
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<tr>
<td>Managing stress</td>
<td>Systematic review – assessed the effectiveness of individual, organisational and mixed interventions on two outcomes: mental health and absenteeism. In total, 23 systematic reviews were identified, which included 499 primary studies; there were 11 meta-analyses and 12 narrative reviews.</td>
<td>Bhui et al. 2012</td>
<td>Organisational interventions showed mixed evidence of benefit. Organisational programmes for physical activity showed a reduction in absenteeism.</td>
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<tr>
<td>Effectiveness of mental health first aid</td>
<td>15 relevant papers were identified through a systematic literature search. Standardised effect sizes were calculated for three different outcome measures: change in knowledge, attitudes and helping behaviours.</td>
<td>Hadlaczy et al. 2014</td>
<td>The results demonstrate that MHFA increases participants' knowledge regarding mental health, decreases their negative attitudes, and increases supportive behaviours toward individuals with mental health problems. The MHFA programme appears recommendable for public-health action.</td>
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### Table 5: Workplace interventions to address lifestyle and promote chronic-disease management

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<td>Promoting physical activity among men in workplaces</td>
<td>Small-scale qualitative study in Holland — interviewed 13 white Dutch male employees aged 23–56. The men worked in a wide range of professions and occupational sectors and all interviewees had been offered a workplace physical-activity programme. Two normative themes were found: first, the ideal man is equated with being a winner and real men are prepared to compete, and secondly, real men are not whiners and ideally, not vulnerable.</td>
<td>Verdonk et al. 2010</td>
<td>Workplace physical activity is associated with a particular type of masculinity – young, occupied with looks, and interested in muscle building. Masculine norms are related to challenging health while taking care of health is feminine and, hence, something to avoid. Workplace physical activity is not framed as a health measure, and not mentioned as of importance to the work role. Competitiveness and nonchalant attitudes towards health shape masculine ideals. In regards to workplace physical activity, some men resist what they perceive to be an emphasis on muscled looks, whereas for others it contributes to looking self-confident. In order to establish a greater reach among vulnerable employees such as ageing men, worksite health promotion programmes including workplace physical activity may benefit from greater insight in the tensions between health behaviours and masculinity.</td>
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<td>Workplace health promotion and diet</td>
<td>Systematic review – 16 studies were included.</td>
<td>Ni Mhurchu et al. 2010</td>
<td>In general, worksite interventions led to positive changes in fruit, vegetable and total fat intake. However, reliance on self-reported methods of dietary assessment means there is a significant risk of bias. No study measured more robust outcomes such as absenteeism, productivity, or healthcare utilisation. The findings of this review suggest that worksite health-promotion programmes are associated with moderate improvement in dietary intake. The quality of studies to date has been frequently suboptimal and further, well designed studies are needed in order to reliably determine effectiveness and cost-effectiveness. Future programmes to improve employee dietary habits should move beyond individual education and aim to intervene at multiple levels of the worksite environment.</td>
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<td><strong>Lifestyle-focused interventions at the workplace to reduce the risk of cardiovascular disease</strong></td>
<td>Extensive systematic literature search for RCTs that met the following inclusion criteria: (i) targeted at workers; (ii) aimed at increasing physical activity and/or improving diet; and (iii) measured body weight, body fat, blood pressure, blood lipids and/or blood glucose. 31 RCTs were included.</td>
<td>Groeneveld et al. 2010</td>
<td>Strong evidence was found for the effectiveness of workplace lifestyle-based interventions on body fat and, in populations at risk for CVD, body weight. Populations with an elevated risk of CVD seemed to benefit most from lifestyle interventions; supervised exercise interventions appeared the least effective intervention strategy.</td>
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<td><strong>Sedentary behaviours (sitting)</strong></td>
<td>Systematic review of studies published up to April 2009. Studies were included if they were interventions to increase energy expenditure (increase physical activity or decrease sitting); were conducted in a workplace setting; and specifically measured sitting as a primary or secondary outcome. Six studies met the inclusion criteria (five randomised trials and one pre-post study).</td>
<td>Chau et al. 2010</td>
<td>The primary aim of all six was to increase physical activity; all had reducing sitting as a secondary aim. All used self-report measures of sitting; one specifically assessed occupational sitting time; the others used measures of general sitting. No studies showed that sitting decreased significantly in the intervention group, compared with a control or comparison group. Currently, there is a dearth of evidence on the effectiveness of workplace interventions for reducing sitting.</td>
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<tr>
<td><strong>Sedentary behaviours (sitting)</strong></td>
<td>Systematic review included eight studies, four RCTs, three CBAs and one cRCT, with a total of 1,125 participants.</td>
<td>Shrestha et al. 2016</td>
<td>At present there is very low-quality evidence that sit–stand desks can reduce sitting time at work, but the effects of policy changes and information and counselling are inconsistent.</td>
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<td><strong>The effects of workplace physical activity interventions in men</strong></td>
<td>Articles targeting physical activity at the workplace were located through a structured database search. Information on intervention strategies and physical activity outcomes were extracted. Only 13 studies (10.5%) reviewed focused on men, of which five showed significant increases in physical activity.</td>
<td>Wong et al. 2012</td>
<td>The systematic review identified that evidence on the effectiveness of workplace physical-activity interventions for men is equivocal and highlighted methodological concerns.</td>
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<td><strong>Effectiveness of workplace interventions in Europe promoting healthy eating</strong></td>
<td>Systematic review – 17 studies solely focusing on promotion of a healthy diet were identified. Eight were educational, one used worksite environmental change strategies, and eight used a combination of both (multi-component). None of the interventions were</td>
<td>Maes et al. 2012</td>
<td>Limited to moderate evidence was found for positive effects of nutrition interventions implemented at the workplace. Effects of workplace health-promotion interventions may be improved if stronger adherence to established quality criteria for such interventions is realised.</td>
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<tr>
<td>Effectiveness of workplace dietary modification interventions</td>
<td>Studies were RCTs and controlled studies. Interventions were implemented for at least three months. Six studies – conducted in Brazil, the USA, Netherlands and Belgium – met the inclusion criteria.</td>
<td>Geaney et al. 2013</td>
<td>Four studies reported small increases in fruit and vegetable consumption (≤ half serving/day). These studies involved workplace dietary modifications and three incorporated nutrition education. Other outcomes reported included health status, co-worker support, job satisfaction, perceived health, self-efficacy and food-purchasing patterns. All studies had methodological limitations that weakened confidence in the results. Limited evidence suggests that workplace dietary modification interventions alone and in combination with nutrition education increase fruit and vegetable intakes. These interventions should be developed with recommended guidelines, workplace characteristics, long-term follow-up and objective outcomes for diet, health and cost.</td>
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<tr>
<td>Workplace physical activity intervention</td>
<td>Systematic review – 20 interventions.</td>
<td>To et al. 2013</td>
<td>12 (60%) of 20 selected interventions reported an improvement in physical activity level, steps or BMI, and there was one slowed step reduction in the intervention group. Among these, 10 were less than six months in duration; nine used pedometers; six applied internet-based approaches; and 5 included activities targeting social and environmental levels. Seven of eight interventions with pre/post-test and quasi-experimental controlled design showed improvement on at least one outcome. However, 7 of 12 randomised controlled trials did not prove effective in any outcome. Interventions that had less rigorous research designs, used pedometers, applied Internet-based approaches, and included activities at social and environmental levels were more likely to report being effective than those without these characteristics.</td>
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<td>Workplace pedometer interventions for increasing physical activity</td>
<td>Cochrane systematic review from the earliest record to between 30 January and 6 February 2012 yielded 3,248 unique records.</td>
<td>Freak-Poli et al. 2013</td>
<td>Overall, there was insufficient evidence to assess the effectiveness of pedometer interventions in the workplace. There is a need for more high-quality randomised controlled</td>
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<td>Reference lists of articles yielded an additional 34 papers. Review team found four relevant studies providing data for 1,809 employees, 60 per cent of whom were allocated to the intervention group. All studies assessed outcomes immediately after the intervention had finished and the intervention duration varied between three to six months.</td>
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<td>trials to assess the effectiveness of pedometer interventions in the workplace for increasing physical activity and improving subsequent health outcomes.</td>
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<td>Promoting physical activity in small and medium-sized organisations</td>
<td>89 previously low-active employees from 17 SMEs participated. A mixed methods evaluation design was used. Quantitative data were collected at baseline and six months later using an online questionnaire. Qualitative data from a series of six focus groups were analysed.</td>
<td>Edmunds et al. 2013</td>
<td>Repeated measures t-tests showed significant increases over time in physical activity, general health rating, satisfaction with life and positive mood states. There were significant decreases in body mass index, perceived stress, negative mood states and presenteeism. There was no change in absenteeism. Analysis of focus group data provided further insight into the impact of the intervention. Five major themes emerged: awareness of physical activity; sustaining physical-activity behaviour change; improved health and well-being; enhanced social networks; and embedding physical activity in the workplace culture. This study shows it is feasible and effective to train employees in SMEs to support their colleagues in physical-activity behaviour change.</td>
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<tr>
<td>Improving recruitment rates to physical-activity programmes in workplaces</td>
<td>Systematic review – 30 studies included in review.</td>
<td>Ryde et al. 2013</td>
<td>For recruitment strategies and intervention components of high-uptake studies, involvement of employees was driven by the organisation, with physical-activity interventions provided as part of the working day in paid time. These findings suggest a potential to improve recruitment through targeting small cohorts of employees, incorporating physical activity as a long-term strategy, facilitating organisationally driven employee involvement, and providing physical-activity interventions during paid time.</td>
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<td>Active workplace interventions</td>
<td>Systematic review – identified 2,036 articles of which 93 were assessed in full text. 17 articles were included (2 with low and 15</td>
<td>Odeen et al. 2013</td>
<td>The review found limited evidence that active workplace interventions were not generally effective in reducing sickness absence, but there was moderate evidence of effect for graded</td>
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<tr>
<td>Workplace health-promotion effectiveness</td>
<td>Systematic review identifying 18 RCTs, published before June 2012, evaluating the effect of a WHPP aimed at smoking cessation, physical activity, healthy nutrition, and/or obesity on self-perceived health, work absence due to sickness, work productivity, or work ability.</td>
<td>Rongen et al. 2013</td>
<td>The effectiveness of a WHPP was larger in younger populations, in interventions with weekly contacts, and in studies in which the control group received no health promotion. A 2.6-fold lower effectiveness was observed for studies performing an intention-to-treat analysis and a 1.7-fold lower effectiveness for studies controlling for confounders. Studies of poor methodologic quality reported a 2.9-fold higher effect size of the WHPP. The effectiveness of a WHPP is partly determined by intervention characteristics and statistical analysis. High-quality RCTs reported lower effect sizes.</td>
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<td>Workplace physical-activity programmes</td>
<td>Systematic review – 58 studies included.</td>
<td>Malik et al. 2014</td>
<td>Of the 58 studies included, the majority utilised health-promotion initiatives. There were six physical activity/exercise interventions, 13 counselling/support interventions, and 39 health-promotion messages/information interventions. 32 of these studies showed a statistically significant increase in a measure of physical activity against a control group at follow-up. While the studies included in this review show some evidence that workplace physical activity interventions can be efficacious, overall the results are inconclusive.</td>
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<td>Physical activity and worker productivity</td>
<td>Eight studies were included in the review.</td>
<td>Pereira et al. 2015</td>
<td>There is consistent evidence that onsite workplace health-enhancing physical-activity (HEPA) programmes do not reduce levels of sick leave. There appears to be inconsistent evidence of the impact of onsite workplace HEPA programmes on worker productivity. Studies that showed benefit were mainly those designed with productivity measures as primary outcomes, delivered to occupations involved with higher physical loads, and had higher compliance and programme intensity. The small number of studies and the lack of consistency among studies limited further analyses.</td>
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<td>Workplace and obesity</td>
<td>Systematic review – 18 studies were included of which 14 examined behavioural interventions and 4 mixed or environmental ones.</td>
<td>Cairns et al. 2015</td>
<td>While most studies (n = 12) found no effects on inequalities in obesity – and a minority found increases (n = 3) – there was also some evidence of potentially effective workplace interventions (n = 3) especially in terms of physical-activity interventions targeted at lower occupational groups. There is experimental evidence that workplace delivered physical-activity interventions have the potential to reduce inequalities in obesity by targeting lower occupational groups. However, overall, the evidence base is small, largely from the United States, and of a low quality.</td>
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<td>Smoking and workplace support</td>
<td>In two cohort studies, participants were 6,179 Finnish public-sector employees who self-reported as smokers at baseline in 2004 (study 1) or 2008 (study 2) and responded to follow-up surveys in 2008 (study 1; n = 3,298; response rate = 71%) or 2010 (study 2; n = 2,881; response rate = 83%). Supervisors’ reports were used to assess workplace smoking-cessation support activities.</td>
<td>Kouvonen et al. 2012</td>
<td>After adjustment for sociodemographic characteristics, number of cigarettes smoked per day, work unit size, shift work, type of job contract, health status, and health behaviours, baseline smokers whose supervisors reported that the employing agency had offered pharmacological treatments or financial incentives were more likely than those in workplaces that did not offer such support to have quit smoking. In general, associations were stronger among moderate or heavy smokers (&gt;10 cigarettes/day) than among light smokers (&lt;10 cigarettes/day). Cessation activities offered by employers may encourage smokers, particularly moderate or heavy smokers, to quit smoking.</td>
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<td>Smoking cessation in the workplace</td>
<td>Literature review including a synthesis of findings from recent systematic reviews and meta-analyses of workplace smoking cessation programmes, a separate review of the qualitative evidence, case studies and an expert panel assessment.</td>
<td>Fishwick et al. 2013</td>
<td>The simple provision or availability of programmes and interventions was unlikely to provide any beneficial behaviour change. Interventions should target workers that actively want to stop smoking, use elements that workers have identified as useful or focus on altering beliefs about smoking and the need to stop. Smoking-cessation programmes at work can provide useful support for workers wishing to stop smoking. They are only likely to be effective if participants have moved beyond the contemplation stage regarding smoking cessation, so that stopping smoking is a personal priority.</td>
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<tr>
<td>Smoking cessation in the workplace</td>
<td>Systematic review – found 31 studies of workplace interventions aimed at individual workers (covering group therapy, individual counselling, self-help materials, nicotine replacement therapy, and social support) and 30 studies testing interventions applied to the workplace as a whole (environmental cues, incentives and comprehensive programmes).</td>
<td>Cahill and Lancaster 2014</td>
<td>Found strong evidence that some interventions directed towards individual smokers increase the likelihood of quitting smoking. These include individual and group counselling, pharmacological treatment to overcome nicotine addiction, and multiple interventions targeting smoking cessation as the primary or only outcome. All these interventions show similar effects whether offered in the workplace or elsewhere. Self-help interventions and social support are less effective. Although people taking up these interventions are more likely to stop, the absolute numbers who quit are low. It failed to detect an effect of comprehensive programmes targeting multiple risk factors in reducing the prevalence of smoking, although this finding was not based on meta-analysed data. There was limited evidence that participation in programmes can be increased by competitions and incentives organised by the employer, although one trial demonstrated a sustained effect of financial rewards for attending a smoking-cessation course and for long-term quitting. Further research is needed to establish which components of this trial contributed to the improvement in success rates.</td>
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<tr>
<td>Incentives for smoking cessation</td>
<td>Systematic review – 21 mixed-population studies met the inclusion criteria, covering more than 8,400 participants. Ten studies were set in clinics or health centres, one in Thai villages served by community health workers, two in academic institutions, and the rest in worksites. All but six of the trials were run in the United States.</td>
<td>Cahill et al. 2015</td>
<td>Incentives appear to boost cessation rates while they are in place. The two trials recruiting from work sites that achieved sustained success rates beyond the reward schedule concentrated their resources into substantial cash payments for abstinence. Such an approach may only be feasible where independently funded smoking-cessation programmes are already available, and within a relatively affluent and educated population. Deposit-refund trials can suffer from relatively low rates of uptake, but those who do sign up and contribute their own money may achieve higher quit rates than reward-only participants. Incentive schemes conducted among pregnant smokers improved the cessation rates, both at the end-of-pregnancy and post-partum assessments. Current and future research might continue to explore the scale, loading and</td>
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### Intervention

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<td>This study aimed to determine the level of awareness and knowledge of chlamydia among young people who were being approached in a variety of community settings and offered opportunistic screening. Men and women aged 16–24 years were approached in education, health and fitness, and workplace settings and invited to complete a self-administered questionnaire then provide a urine sample for chlamydia testing. Follow-up semi-structured interviews with 24 respondents were carried out after test results were received. 363 questionnaires were completed (43.5% from men).</td>
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<td>Lorimer and Hart 2010</td>
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<td>Longevity of possible cash or voucher reward schedules, within a variety of smoking populations.</td>
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This study has been included because it gained a high participation rate from men, with the workplace being one of the setting utilised to access this audience. Men’s knowledge of symptoms was consistently lower than women’s, with most men failing to identify unusual discharge as a symptom in men (men 58.3%, female 45.8%); fewer men knew unusual discharge was a symptom among women (men 65.3% female 21.4%). The asymptomatic nature of the infection resonated with respondents and was the commonest piece of information they picked up from their participation in the study.
### Table 6: Addressing presenteeism

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<td>Insomnia and presenteeism</td>
<td>Cross-sectional telephone survey. National sample of 7,428 employed health plan subscribers (ages 18+). Broadly defined insomnia was assessed with the Brief Insomnia Questionnaire (BIQ). Work absenteeism and presenteeism (low on-the-job work performance defined in the metric of lost workday equivalents) were assessed with the WHO Health and Work Performance Questionnaire (HPQ).</td>
<td>Kessler et al. 2011</td>
<td>Insomnia was significantly associated with lost work performance due to presenteeism but not absenteeism, with an annualised individual-level association of insomnia with presenteeism equivalent to 11.3 days of lost work performance. This estimate decreased to 7.8 days when controls were introduced for co-morbid conditions. The individual-level human capital value of this net estimate was $2,280. If estimates are generalised to the total US workforce, they are equivalent to annualised population-level estimates of 252.7 million days and $63.2 billion.</td>
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<td>Economic evaluation of costs</td>
<td>Systematic review – a total of 34 studies were included. Costs of health-related productivity were estimated using (a combination of) data related to sick leave, compensated sick leave, light or modified duty or work presenteeism. Data were collected from different sources (e.g. administrative databases, worker self-report, supervisors) and by different methods (e.g. questionnaires, interviews).</td>
<td>Uegaki et al. 2011</td>
<td>Methods for measuring and valuing health-related productivity vary widely, hindering comparability of results and decision-making.</td>
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<td>Social and moral norms around sickness absence and presenteeism</td>
<td>63 employees took part in 14 focus groups in two public-sector organisations. Discussions were audio-recorded, transcribed, and analysed thematically using NVivo.</td>
<td>Buck et al. 2011</td>
<td>The study confirmed the importance of health-focused clinical factors (Yellow flags), perceptions of work (Blue flags), and more objective characteristics of work and organisational policies (Black flags), which emerged as major themes. The social and moral norms surrounding sickness absence and presenteeism were frequently discussed, including the impact of absence on colleagues, guilt, legitimising illness, and trust. There were interactions between the different Flags, often mediated by managers via their relationships with employees and their role in implementing organisational policy. Conclusions: The Flags system was useful as a conceptual framework in this context for identifying a number of obstacles to working with health problems, many of which were</td>
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<td>Role of workplace-health programmes in preventing presenteeism</td>
<td>Systematic review – after 2,032 titles and abstracts were screened, 47 articles were reviewed, and 14 were accepted (4 strong and 10 moderate studies).</td>
<td>Cancelliere et al. 2011</td>
<td>These studies contained preliminary evidence for a positive effect of some WHP programmes. Successful programmes offered organisational leadership, health risk screening, individually tailored programmes, and a supportive workplace culture. Potential risk factors contributing to presenteeism included being overweight, a poor diet, a lack of exercise, high stress, and poor relations with co-workers and management.</td>
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<td>Nutritional interventions – with presenteeism as minor factor considered</td>
<td>Systematic review – the search identified 2,358 publications, 30 of which were found suitable for the review.</td>
<td>Jensen 2011</td>
<td>Several of the reviewed studies suggest that diet-related worksite interventions have positive impacts on employees' nutritional knowledge, food intake and health and on the firm's profitability, mainly in terms of reduced absenteeism and presenteeism. Well-targeted and efficiently implemented diet-related worksite health-promotion interventions may improve labour productivity by 1–2%. On larger worksites, such productivity gains are likely to more than offset the costs of implementing such interventions.</td>
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Table 7: Health needs of older workers

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<td>The health safety and health promotion needs of older workers</td>
<td>Review of literature – full text not available, but abstract states 180 publications analysed.</td>
<td>Crawford et al. 2010</td>
<td>The review identified that there are a number of age-related physical and psychological changes. However, these changes can be moderated by increased physical activity, intellectual activity and other lifestyle factors. Sensory abilities are also subject to change but some of these can be accommodated via equipment or workplace adjustments. In reviewing accident data, although older workers are at a reduced risk of accidents, they are more at risk of fatal accidents. Ill-health data identify that many chronic diseases can be controlled and adjustments put in place in the work environment. A number of intervention studies were identified but few were of high quality. The research suggests that occupational health intervention can reduce the risk of early retirement from the workplace; health promotion interventions are seen as positive by older workers but it is important to ensure equal access to all workers in such promotions.</td>
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<td>Identifying factors likely to push older people out of the workforce</td>
<td>Workers aged 55–62 were selected from the 2002–3 cohort of the Longitudinal Aging Study Amsterdam (n = 333). Potential predictors were: health, personality, work characteristics, and demographics. Per potential predictor, a logistic regression coefficient for 'having paid work in 2005–2006' was calculated for workers with and without chronic disease. A pooled estimate was computed and differences between the pooled estimate and the coefficients were tested.</td>
<td>Boot et al. 2014</td>
<td>Predictors of having paid work were similar for workers with and without chronic diseases, except for physical workload and psychosocial resources at work. Having more psychosocial resources was predictive for having paid work in workers with chronic disease and not in workers without chronic disease. Lower age, more weekly working hours, no functional limitations, fewer depressive symptoms, lower neuroticism scores, and more sense of mastery were significantly associated with having paid work in all workers. Conclusions Differences between predictors of having paid work between workers with and without chronic disease should be taken into account when aiming to prevent exit from the workforce. In particular, the vulnerable subgroup of older workers with chronic disease and low psychosocial resources at work is more likely to quit working.</td>
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<td>Flexible working conditions</td>
<td>Searches (July 2009) covered 12 databases Ten studies fulfilled the inclusion criteria. Six reported on interventions relating to temporal flexibility: self-scheduling of shift work (n=4), flextime (n=1) and overtime (n=1). The remaining four studies evaluated a form of contractual flexibility: partial/gradual retirement (n=2), involuntary part-time work (n=1) and fixed-term contract (n=1).</td>
<td>Joyce et al. 2010</td>
<td>The findings of this review tentatively suggest that flexible working interventions that increase worker control and choice (such as self-scheduling or gradual/partial retirement) are likely to have a positive effect on health outcomes. In contrast, interventions that were motivated or dictated by organisational interests, such as fixed-term contract and involuntary part-time employment, found equivocal or negative health effects. Given the partial and methodologically limited evidence base, these findings should be interpreted with caution.</td>
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<td>Investigating the relationships between transformational leadership, self-efficacy and sleep quality</td>
<td>Longitudinal design was used to collect data from Danish health-care workers at time 1 in 2005 (n=447) and 18 months later at time 2 in 2007 (n=274).</td>
<td>Munir and Nielsen 2009</td>
<td>Direct relationships between transformational leadership and sleep quality were found. This relationship was negative cross-sectionally at both time points, but positive between baseline and follow-up. The relationship between leadership and employees’ sleep quality was not mediated by employees’ self-efficacy. Training managers in transformational leadership behaviours may have a positive impact on health-care workers’ health over time. However, more research is needed to examine the mechanisms by which transformational leadership brings about improved sleep quality; self-efficacy was not found to be the explanation.</td>
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<td>Effect of shift rotation on employee cortisol profile, sleep quality, fatigue, and attention level</td>
<td>Systematic review of articles published between 1996 and 2008. A total of 28 articles were included in the review.</td>
<td>Niu et al. 2011</td>
<td>Systematic review confirmed a conflict between sleep–wake cycle and light–dark cycle in night work. Consequences of circadian rhythm disturbance include disruption of sleep, decreased vigilance, general feeling of malaise, and decreased mental efficiency. Shift workers who sleep during the day experience cortisol secretion increases, which diminish the healing power of sleep and enjoy 1–4 hours less sleep on average than night sleepers. Sleep debt accumulation results in chronic fatigue. Prolonged fatigue and inadequate recovery result in decreased work performance and more incidents.</td>
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<td>Rotation from day shift to night shift and its effect on shift workers was a special focus of the articles retained for review. Conclusions: Disturbed circadian rhythm in humans has been associated with a variety of mental and physical disorders and may negatively impact on work safety, performance, and productivity.</td>
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All URLs correct as of 28 March 2016


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