Workplace Health Connect Pilot

Evaluation Findings

Prepared by the Institute for Employment Studies
for the Health and Safety Executive 2009

Workplace Health Connect Pilot

Evaluation Findings

Claire Tyers MSc

Daniel Lucy MSc

Emanuela Carta MSc

Jenny Savage MSc

Institute for Employment Studies

Yuila Kossykh MA MSc

Thomas Bailey MSc

Frontier Economics

This report and the work it describes were funded by the Health and Safety Executive (HSE). Its contents, including any opinions and/or conclusions expressed, are those of the authors alone and do not necessarily reflect HSE policy.

HSE Books

First published 2009

Acknowledgements

The authors would like to acknowledge the support received from the Evaluation Working Group for this project involving a range of HSE staff over the period of the evaluation. Most recently, those offering support have included: Monica Smith, Laura Smethurst, Simon Clarke, Ian Spencer and Monica Ottati. In addition, WHC service providers and many of the employers using WHC who gave their time to participate in the research. We would also like to acknowledge the contribution of other research staff working on the evaluation including: Jim Hillage, Jenny Savage, Helen Stevens, Alice Sinclair, Sally Wilson, Dr Jo Rick (from the Institute of Work Psychology), Thomas Usher, Jonny Gifford, Dan Pearmain, Nick Jagger, Alberto Martini (from PROVA) and Nick Coleman. Further thanks are due to James Walker-Hebborn and Richard James who helped in the production of this report and the administration of the project. Additionally, the input of the British Market Research Bureau, and Gareth Edwards and Rachel Phillips in particular, in conducting the employer survey elements of the evaluation, was vital.

CONTENTS

EXECUTIVE SUMMARY

THE WORKPLACE HEALTH CONNECT PILOT

The Health and Safety Executive's (HSE) Workplace Health Connect (WHC) pilot was launched in February 2006 and ran until February 2008. It was a free, no-obligation, service which aimed to provide small and medium-sized enterprises (SMEs) with advice on workplace health issues to increase the level of healthy workplaces across England and Wales. Due to limited uptake for the service, it was widened to provide advice on both workplace health and safety issues amongst SMEs

The pilot was designed to test out a service delivery model and to determine whether, operationally, this model was capable of achieving its objectives, i.e. whether the model's processes and procedures would allow the pilot to be successfully delivered to its target audience. It included an extensive evaluation of the service to inform the further development of other HSE pilots that had an occupational health and safety focus for the SME community.

There were two main delivery arms of the WHC service:

- A national **adviceline** taking calls from both employers and employees, offering detailed and tailored practical advice, supported by a dedicated website, and which also acted as a referral point for a visit service.
- Problem-solving **visits** from qualified advisers available to employers from postcodes within five regions.[1] 'Pathfinders' contracted by the HSE delivered this service, and offered employers up to seven hours of contact time (for most delivered over the course of two separate visits). Users were provided with a written report after their first visit and a telephone follow-up three months after their first visit. Employers would be either referred onto this aspect of the service via a call to the adviceline or a direct approach to/from their local provider.

In order to allow an impact assessment, the visit service was set two numerical targets for user numbers. These were to make approximately 4,750 free, initial site visits, and have a positive impact on 95,000 workers (based on an average company size of 20 workers). In addition, it was anticipated that the adviceline would handle enough calls during the first year of operation to secure 2,850 evaluation participants, although this was not actually a target for the service.

EVALUATING THE PILOT

The evaluation of the WHC pilot was a central part of the pilot's activities. The objectives for the evaluation were to:

1. Assess the net impact of the service on the incidence and duration of occupationally related ill-health and injury, and to identify which model of support (including the adviceline alone) had the greatest impact.
2. Assess the operation of the regional pilots, identify their costs and benefits, and perceived barriers to full use of service; also to assess the key lessons for improving the quality,

[1] *London, West Midlands, North West, Wales and the North East*

effectiveness, efficiency and sustainability of occupational health safety and return to work (OHSR) support services in the future. Also triggers for use, and user satisfaction with the service.

3. Assess the operation of the national adviceline in the same way. In fact, the evaluation was unable to provide a formal impact assessment of the adviceline due to low user levels.

The main evaluation activities consisted of:

- Gathering and analysing information from service providers using their monitoring data (e.g. on user numbers) and drawing on their experiences of running the visit and adviceline services.
- Baseline and follow-up telephone surveys of WHC pilot users and a similar control group of non-users to assess the impact of the service on employers over the course of a year.
- Employer case studies with users of the workplace visit service and semi-structured telephone interviews with users of the adviceline to provide a more detailed user perspective.
- A cost-benefit evaluation of the pilot model.

OPERATION OF REGIONAL PILOTS AND ADVICELINE

Service marketing

Two main marketing methods were used to promote the pilot and these were equally important in generating interest in its services:

- central marketing, which relied principally on telemarketing and online search activity (e.g. pay per click Internet advertising) and which was run on a national basis
- 'outreach' activities by providers which varied by region (e.g. local telemarketing, use of intermediaries and running events).

Central marketing cost around £466 per employer receiving a visit, which is 20 per cent of the total pilot investment. The more successful methods tended to involve direct approaches to users.

A clear learning point from this aspect of the pilot is that marketing a service to SMEs based on health messages is extremely difficult. In fact, a decision was taken, relatively early in the life of the pilot, to market the WHC pilot on the basis of it being a generic health and safety service to increase user numbers (and therefore deliver on the workplace visit targets so that the evaluation could take place). This broader focus on health and safety was more attractive to SMEs as they did not, on the whole, identify with messages about reducing sickness absence.

The marketing strategy was therefore successful in generating user numbers, but also affected employer expectations of the service. SMEs had signed up for a service which would address their concerns about safety. The WHC pilot effectively therefore 'sold' itself on safety, whilst still attempting to 'deliver' on health.

Adviceline

The adviceline recorded 14,841 calls, of which:

- 18 per cent (2,705 calls) involved the provision of in-depth advice about health and safety issues, and around 18 per cent of these (485 calls) were logged by advisers as having involved a discussion about a workplace health issue
- 9 per cent (1,342 calls) resulted in a simple request for information being answered (e.g. the contact details of another organisation provided)
- 23 per cent (3,442 callers) were referred straight through to the regional visit services. Most employers who were interested in and eligible for a workplace visit declined any support from the adviceline, preferring to wait until they met an adviser face-to-face
- 50 per cent (7,352 calls) were unclassified. A sizeable proportion of these are likely to have been cases where an employer was passed onto the adviceline after an approach from a telemarketer and then declined the offer of support.

Thus there was only limited use of the adviceline service as it was originally intended (i.e. to provide guidance and support with workplace health and return-to-work issues). A survey of employers who had received advice from the service revealed that satisfaction levels with the adviceline were high and around 40 per cent of this group felt that they had made some kind of changes as a result of their call. A large proportion adviceline users (77 per cent) believed that they would have made these changes anyway (although only through use of Internet sites or their own common sense), although some degree of social desirability bias (i.e. presenting themselves in a positive light) might be present in this result.

Interviews with employers who had received advice from the adviceline, suggest that it was helpful because using it meant that they:

- were able to find answers more quickly than if they were on their own
- felt reassured by talking to someone that they were doing the right thing
- were signposted onto the resources to help them deal with current and future issues.

There was little activity designed specifically to market the adviceline. It is therefore difficult to say whether the low user numbers for this aspect of the pilot is because there was no demand amongst employers for this type of service, or because insufficient numbers of employers became aware of it to drive user numbers up. Amongst those who did find out about the adviceline service, however, there was little demand for advice on occupational health issues.

Regional workplace visit service

5,413 employers, employing approximately 124,000 workers, received visits, exceeding the targets for this aspect of the pilot. Employers were highly satisfied with the aspects of the service that they had received, and saw the advisers as professional, businesses focussed and knowledgeable.

Advisers found it hard to engage the SMEs they visited with workplace health issues, unless there was a specific or ongoing sickness absence problem at the firm. This was despite attempting to cover the three WHC core health topics (i.e. workplace stress, absence management and manual handling) at some point during all visits. The majority of SMEs

wanted access to relatively basic advice on traditional health and safety issues, in particular help to establish or check health and safety systems, policies and/or procedures. In meeting the pilot's objectives of offering a tailored service, therefore, the majority of time spent on visits tended to involve discussions about generic health and safety issues.

The implications of this for future activities are that:

- Whilst the WHC pilot did take health messages into SMEs, employers used the visits to improve safety measures rather than taking action specifically on health. When offered a service which covers both health and safety, therefore, SMEs tend to use it to help ensure their compliance with health and safety regulations.
- Operating as it did, in practice as a source of basic health and safety advice (in the main), advisers were rarely technically challenged as most SMEs share relatively common, and basic, health and safety needs/interests. Less well qualified advisers could have dealt with the majority of SME concerns.

IMPACT OF THE VISIT SERVICE

An important part of the evaluation was determining what impact, if any, access to the services offered by the WHC pilot had on SMEs.

The technique used to measure impact was a difference-in-difference technique. This is a commonly used empirical estimation technique in economics. It allows the 'true' effect of the WHC pilot to be estimated, over and above what would have happened anyway over time due to factors unassociated with a particular intervention. Here, any changes between the baseline and follow-up surveys of users covering the period of one year were compared with changes over the same period experienced by the comparator group. Differences in the characteristics of employers in the two groups (e.g. size, sector, length of time in operation) were controlled for in the analysis.

Impact was assessed to determine whether involvement with WHC resulted in any change in: the number of cases of ill-health and those caused, or made worse, by work, or; the numbers of accidents in the workplace. **There was no direct impact of involvement with the WHC pilot and changes to absence or accident rates.**

In addition, change was measured on ten indicators of good practice in health and safety, and WHC did have a statistically significant effect of improving performance on five of these, namely:

- increasing the likelihood of organisations having formal centralised systems recording absence (WHC users had an increased probability of six per cent over organisations not participating)
- increasing the likelihood of organisations having formal centralised systems recording accidents (WHC users had an increased probability of one per cent over organisations not participating)
- ensuring that employees conducting risk assessment were trained on this (WHC users had an increased probability of 13 per cent over organisations not participating)
- increasing the likelihood that risk assessments were regularly undertaken (WHC users had an increased probability of eight per cent over organisations not participating)

- increasing the likelihood that employers provided health and safety training for their staff (WHC users had an increased probability of 12 per cent over organisations not participating).

A further stage of analysis revealed a link between improvements on these indicators of good health and safety practice, and reduced worker injury rates. **Use of WHC is estimated to have led to improvements to health and safety practice such that a reduction of the likelihood of workplace injuries of 0.54 percentage points was achieved**[1]. This reflects the focus of the service as it operated in practice (i.e. providing support with basic health and safety). What this means is that the average probability, amongst the firms involved in the survey, of a worker being injured was reduced by 6.59 per cent.[2]

Additional impacts were identified in the case study work that had not been measured in the survey. Examples included employers who felt that improvements to their health and safety practices gave them an advantage when bidding for new contracts. Some employers also talked about how contact with advisers had resulted in them being more confident and knowledgeable in dealing with health and safety issues and how the health and safety culture had changed within their organisation, with workers becoming more involved in day-to-day issues.

Employers therefore did make changes to their health and safety practice as the result of advice they received during workplace visits from WHC advisers. The primary aim of the WHC pilot model of achieving measurable improvements to workplace health indicators, however, was not achieved. It is possible that any health outcomes would take longer than the one year tracking period of the evaluation to emerge.

COST–BENEFIT ASSESSMENT

The costs of providing the whole WHC service[3] were £15.5 million (at 2008-09 prices). [4]

Employers estimated that their participation costs (accrued either in meeting with advisers or implementing their recommendations) were £8.9 million.

Based on the reduced accident rates associated with improvements to health and safety practice as a result of WHC participation, the estimated benefits of the pilot were £13.4 million This assumes that the benefits of the service will continue into the future, but depreciate over time.

Using cost data for all aspects of provision (i.e. visit service, adviceline, programme management and marketing), and the costs incurred by employers, the programme is therefore estimated to result in a net loss of £11 million.[1]

---

[1] *Employers that had changed the way they recorded accidents and injuries between the two survey waves were removed from this analysis in an attempt to isolate recording effects (ie where better recording increases the likelihood that an absence or injury is recorded) from health/safety effects resulting from changes to actual practice.*

[2] *This calculation is based on a 0.54 per cent change, divided by the average rate of injury of 8.4 per cent experienced by the firms in the sample (ie 0.0054/0.082 = 0.659)*

[3] *These costs do not include the cost of the evaluation of the pilot; the total cost of the pilot including evaluation was £16,638,380*

[4] *Costs of provision include some VAT. It is conventional in social cost benefit analysis to exclude transfers payments such as VAT. However as the exact level of VAT was not identified for this evaluation, this results in the total cost of provision being greater than it would be with all VAT excluded.*

It is worth noting that there are generally more difficulties in accurately estimating benefits than there are in estimating costs. These difficulties include: reliance solely on evidence of impact which can be assigned an economic value; difficulties in accurately measuring final outcomes such as ill-health rates within a limited time frame, and; factors which could affect outcomes differently within the WHC user and control groups but which cannot be accounted for in the analysis (e.g. employer ethos). In addition, it was not possible to calculate the estimated benefits of the adviceline as part of this evaluation. These issues mean that the cost–benefit conducted for the WHC pilot is likely to underestimate the benefits of the service. A longer-term evaluation, could allow a better assessment of any health outcomes which take more than a year to emerge. There would, however, be methodological and financial challenges in implementing such an evaluation.

As WHC was operated as a pilot initiative, an additional, and unquantifiable, benefit of the service is the lessons learnt during its delivery. These lessons should improve the value for money obtained should a need arise to design an advisory service in future.

EXISTING HEALTH AND WELFARE PROVISION AMONGST SMEs

As a supplementary activity to the main evaluation, a telephone survey of SMEs (WHC users and a comparator group) was undertaken looking at their existing approaches and attitudes towards health and welfare provision in the workplace.

This confirmed that SMEs tend to take a relatively 'safety' focussed view of what staff health and welfare provisions involve. However, they actually offer a wide range of well-being provisions for their staff. Almost all SMEs offered some form of flexible working, for example, but few, until prompted, linked this with staff health or welfare. Therefore SMEs may be doing more than they think they are on worker well-being, although their actions may not be directly related to a workplace health agenda.

It was clear that SMEs do not see sickness absence as a problem for their businesses. This is important in framing messages which target this type of business. Traditional arguments about reducing the costs of sickness absence, which have resonance amongst larger companies, are unlikely to appeal to SMEs. Only a small proportion of the SMEs surveyed, around 14 per cent, claimed to have used an occupational health (OH) nurse or doctor in the last year.

WHC users were more likely than non-users to have experienced difficulties with finding money, getting advice and knowing what to do to improve staff health and well-being. They were also less likely to have paid for any external support linked to staff health and well-being provisions. These factors could explain their willingness to get involved with the pilot.

LESSONS LEARNT

There are a range of lessons learnt from the operation of the WHC pilot which will be of interest to different audiences.

---

[1] *Because of the treatment of VAT noted above the net loss is greater than it would be with all VAT excluded.*

For **providers and commissioners** of any future activities involving a complex advice service:

- Good planning, organisation and management are vital to operational success, particularly when there are multiple delivery arms. Setting clear quality standards, and ensuring that these are adhered to across all aspects of provision (e.g. tying quality assurance into payments and contracting arrangements) will help to deliver a consistent service to all clients. So too will a central approach to branding and service parameters.

- High quality monitoring data can be achieved, but should be done so using a single system in electronic format, even when there are multiple providers. Requiring providers to supply complete records of their activities in service contracts is a good way to encourage high quality data collection. So too is conducting regular analysis of the data and feeding the results back to providers.

- The level of advice required may not all be in-depth, or cover difficult areas. SMEs in particular tend to share a number of common concerns. It is therefore worth considering whether a two-tier advice system could work. More highly trained or specialist staff would be called upon only when necessary and more cost effective methods of dealing with everyday questions developed. Alternatively, a greater role for local providers (outside of the core service) could be sought for more technical support, although employers will need encouragement to pay for these services.

There are also some clear messages about **engaging with SMEs**. These include:

- SMEs do not tend to seek out support with workplace health (or health and safety) issues unless they have a current or specific problem (e.g. an ongoing case of sickness absence). They often do not know where to go to find advice or what sort of advice they need. Internet-based advertising was a good way to connect with those SMEs who are actively looking for help.

- In terms of driving up user numbers, a successful method was a direct approach via telemarketing. Regional outreach efforts, resulting in word of mouth referrals, were equally important. A variety of marketing approaches is therefore necessary to successfully target the full range of SMEs and attract employers who have not already identified any support needs.

- There are a range of existing sources of information and advice which SMEs could be encouraged to more fully utilise (e.g. HSE infoline and website). However, the message is very much that this type of business finds it difficult to navigate its way through information on health and safety; such businesses also lack the confidence to make decisions about the right course of action for their organisation. This can result in inactivity, and is behind their very positive reaction to an offer of personal, tailored, support.

Lessons on **promoting the workplace health** agenda, particularly with SMEs include:

- SMEs overriding concerns are about safety and not workplace health, largely driven by their desire to ensure legal compliance with health and safety legislation. In order to achieve its user numbers, the WHC pilot was required to market itself using safety messages.

- There is therefore likely to be a lower level of demand for any service which uses workplace health messages to connect with SMEs. For a less intensive support model (e.g. telephone only) this does not necessarily need to be a problem, as resource allocation could be made accordingly. However, ensuring that businesses know where to go when

they do have a 'live' issue would be an important component of any model. This less aggressive approach to promotion, however, would be likely to serve a relatively small proportion of the SME community at any one time.

- Messages which connect with larger businesses about health, specifically managing workplace health issues to reduce the costs of sickness absence, have little resonance with most SMEs who do not see themselves as having a sickness absence problem. Other messages will need to be specifically developed which tap into their concerns. For example, accessing this type of support would help them to find low cost, context specific approaches which suit their business and which have other benefits (e.g. productivity, staff morale).

There were, therefore, major challenges inherent in promoting occupational health messages within SMEs. Over and above the implications of this for a specific service such as WHC, there is a more general challenge to raise the priority of taking a proactive approach to workplace health amongst employers.

1 THE WORKPLACE HEALTH CONNECT PILOT

This chapter presents an overview of the Workplace Health Connect (WHC) pilot, how it was developed, and other initiatives which are linked to it.

1.1 CHAPTER SUMMARY

- The WHC pilot ran for two years from February 2006 as a free, no obligation service designed to offer Occupational Health (OH) support to SMEs.
- It was one of a number of pilots designed to test out an Occupational Health, Safety and Return to Work (OHSR) model. The WHC pilot was therefore designed to trial an approach and provide solid evaluative data offering learning points from this trial, namely whether a service of this kind could a) have an impact on occupational health and b) operate well.
- The main features of the service were:
  - a telephone adviceline operating nationally
  - a workplace visit service operating in five regions of England and Wales
- The pilot aimed to develop innovative ways of working, and provide accessible advice and support to its target market (SMEs without existing access to occupational health support), resulting in an increase in the level of healthy workplaces.
- The aims for delivery were to offer employers, at a minimum, the basic principles of problem solving, so that they could resolve current and future issues themselves. Therefore, it hoped to provide small and medium sized businesses with the knowledge and skills to resolve workplace health, safety and return-to-work challenges, and improve SME understanding of workplace health issues, as well as change employer and worker behaviours so that preventative measures were established to avoid unnecessary workplace health issues in the future.
- This evaluation assesses the operation and impact of the WHC pilot, but it should also help to inform the government's current agenda regarding how best to safeguard the health of the working age population, particularly in terms of how SMEs can be targeted and how they respond to a service of this kind.

1.2 DRIVERS OF THE WHC MODEL

In June 2000, the Government and Health and Safety Commission sought to inject new impetus to better health and safety in all workplaces and launched a ten year strategy. It contained the first ever targets for Great Britain's health and safety system.[1] One of the ten strategy points emphasised the importance of occupational health support in reaching these new targets. There was also an emphasis on the need for a more positive engagement with small firms and a wider partnership on health and safety issues.

---

[1] *These targets were that, by 2010: the number of working days lost from work-related injury and ill-health to be reduced by 30 per cent; the incident rate of fatal and major injury accidents to be reduced by ten per cent; and the incident rate of cases of work-related ill-health to be reduced by 20 per cent.*

A Strategy for Workplace Health and Safety in Great Britain to 2010 and Beyond (HSC, 2004), noted that the partnership of the HSC, HSE and local authorities (LAs) had done well in improving safety, but that health needed additional attention; also that traditional interventions (e.g. enforcement) may be less effective in relation to health. Of the 40 million days lost to workplace injury and ill-health in 2001/02, 33 million were attributable to ill-health.

> *'The new challenges in health and safety are almost all health rather than safety but crucially, the rate of improvement in safety has now slowed.'* [1]

A survey conducted by the HSE conducted in 2002 showed that only three per cent of UK companies used basic but comprehensive occupational health and safety advice.[2] A European survey also showed that the UK had the lowest level of Occupational Health (OH) provision in the developed EU, covering just 34 per cent of workers.[3]

Small businesses make a vital contribution to the overall health of the UK economy and to improving the productivity of UK business. Small and medium-sized enterprises (SMEs) – defined as businesses with zero to 249 employees – account for 99.9 per cent of all enterprises. In total, SMEs employ 9.68 million people, or 31 per cent of the total workforce in employment in the UK.[4] There is some research to suggest that the record of health and safety in SMEs is poor compared to that in larger firms, and that the profile of problems and risks differs substantially. For example, an analysis of RIDDOR and LFS data shows that the rate of fatal injury in small manufacturing workplaces is more than double that of those in medium and large enterprises.[5] However, the rate of major reported injury tends to be slightly lower in small businesses, and the rate of other non-fatal reportable injuries considerably lower. Some, at least, of this difference is likely to be the result of better reporting practices in larger enterprises.

There is other evidence to suggest that some small businesses find it difficult to maintain compliance with the health and safety regulations that apply to them. In the latest Annual Small Business Survey [6], 14 per cent of small businesses pointed to regulations as a major business burden, and Health and Safety regulations were by far the most common type of regulation perceived to be causing problems. There is also evidence that the relative costs of compliance with health and safety are greater amongst SMEs than larger organisations.[7]

SMEs also appear more accident prone than larger enterprises, in part because of the inherent dangers in the sectors they serve (e.g. construction, wholesale, retail, hotels and catering, and

---

1 *HSC (2004)* A Strategy for Workplace Health and Safety in Great Britain to 2010 and Beyond*, London, HSC, page 3.*

2 *Institute of Occupational Medicine (2002)* Survey of Use of Occupational Health Support, *HSE CCR 445.*

3 *Cited in:* Support Programme Action Group: A vision for health, safety and rehabilitation support in work for Great Britain. *(2003) Health & Safety Commission*

4 *Williams, M. and Cowling, M. (2009)* Annual Small Business Survey 2008/9, *BERR. See www.berr.gov.uk/files/file50124.doc*

5 *HSC (2001)* Levels and Trends in Workplace Injury: Rates of injury within small and large manufacturing workplaces, *London, HSC.*

6 *Small Business Service (2008)* Annual Small Business Survey 2006/7. *www.berr.gov.uk/files/file42727.doc*

7 *Lancaster, R., Ward, R., Talbot, P. and Brazier, A. (2003)* Cost of compliance with health and safety regulations in SMEs*, HSE Research Report 174.*

transport).[1] There are also indications that there is some tendency to subcontract high-risk tasks out of larger companies. This, coupled with lower capacity within SMEs (e.g. because of a lack of internal experts) to protect staff from risk, leaves SMEs particularly vulnerable to occupational injury and ill-health.

The WHC pilot was therefore designed in order to address the specific needs of SMEs in the UK, as part of government targets for reducing work-related ill-health, and recognising the importance of SMEs within the economy.

1.3 WHC PART OF A BROADER OHSR MODEL

The WHC pilot was a large-scale programme in which the HSE sought to develop innovative partnerships in the public and private sector to provide OHSR support regionally to SMEs. The WHC pilot was used to test the OHSR support model created by the HSE. The approach was originally aimed at providing employers (including the self-employed) and workers (including those currently on long-term sickness absence) with advice, guidance and other services to help them address their occupational health, safety and return to work needs. It aimed to help with current ill-health in the workplace as well as both preventing the incidence of illness and injury and securing an early return to work if and when they occur. Inherent within the aims for the pilot was also designing evaluation from the start to ensure that all opportunities to learn about how the service operated, and whether it had an impact, were taken. The model was informed by NHS Scotland, through the Scotland wide initiative – Safe and Healthy Working. This had an OH support service funded by the Scottish Executive.[2]

There were already two HSE pilots of the OHSR model in place when the WHC pilot was developed, which were smaller in scale, and designed to test different aspects of the model. These were:

- Better Health at Work, which was a partnership between Kirklees Metropolitan Council, three Primary Care Trusts and JobCentre Plus to develop and deliver an integrated OHSR support service.
- Constructing Better Health, which was an occupational health support pilot for the construction industry, allowing the HSE to work as a partner with industry.

These other pilots are also now complete and each involved an evaluation, the results of which will need to be considered alongside those of the evaluation of the WHC pilot in determining the future of the OHSR model which the HSE has tested. The intention was that the WHC pilot would provide a structured and controlled test of whether the OHSR model can deliver health and safety outcomes; whether its benefits outweigh its costs, and what lessons can be learnt to develop any future services which meet the needs of employers and workers.

The HSE already offers a service called 'Infoline'. Infoline is HSE's public enquiry contact centre, and a 'one- stop shop' for all enquiries relating to HSE and what HSE does. Infoline gives people rapid access to HSE's wealth of health and safety information, and helps them navigate regulations and guidance. It also provides access to HSE's free and priced

---

[1] *European Agency for Safety and Health at Work (2003)* Improving occupational safety and health in SMEs: Examples of effective assistance*, EASHW.*

[2] *See www.healthyworkinglives.com/ for further details.*

publications and products via HSE Books. Where Infoline is different to the WHC pilot adviceline is that Infoline will only give enquirers information. Enquiries that require advice, guidance or interpretation are referred to an HSE expert to deal with. Infoline takes around 250,000 calls and over 25,000 written enquiries each year. Infoline answer 90 per cent of contacts themselves, with the remaining 10 per cent being referred either to an expert within HSE or HSE Books[1].

1.4 THE WHC PILOT

The WHC pilot was launched in February 2006 as a pilot initiative, with a national adviceline and teams of qualified advisers conducting workplace visits in five regions across England and Wales. An extensive evaluation was designed into the pilot to ensure that learning about impact and processes could be accrued throughout its operation. The service offered through the WHC pilot, therefore, was always a service model 'on trial'.

It provided a free, no-obligation service on workplace health and safety. The overriding aim throughout all the stages of the process was to transfer knowledge to SMEs and provide them with the skills to tackle and solve any existing and future workplace health problems. Despite the holistic approach of the model, the specific focus of the pilot was on employers with between 5 and 250 employees and without existing access to occupational health support (either in-house or provided commercially).

The vision of the WHC pilot was stated as:

> *'Everyone working in small firms should have easy access to free, consistent, high quality advice on creating and maintaining a healthy workplace. Workers and employers work together to improve the quality of workplace health and return to work of colleagues when they have been ill. Businesses are more profitable and everyone enjoys the economic and health benefits of being in work.'*[2]

The design of the pilot placed 'workplace-focussed problem-solvers' at the heart of the OHSR delivery model. It aimed to help with current ill-health in the workplace, as well as preventing incidence of illness and injury and securing an early return to work if/when they occurred.

1.4.1 Service framework for the pilot

The WHC pilot was originally designed to operate at three levels (although as noted below, the Level 3 service was rarely utilised):

- Level 1 was a telephone adviceline which offered free, detailed, tailored and practical advice to callers – both employers and workers – on workplace health, safety and return-to-work issues. This was also supported by a dedicated website.
- Level 2 offered a problem-solving service available in five regions, operated by contractors (often formed from regional partnerships) known as 'pathfinders', which carried out free visits to advise on workplace health issues. This service had strong links with the adviceline, which acted as a referral service for the visits.

---

[1] *See www.hse.gov.uk/contact/index.htm for more information about this service.*

[2] *See www.hse.gov.uk/workplacehealth for further details.*

- Level 3 was to consist of signposting by the adviceline and pathfinders for employers/workers directed (where appropriate) to local approved specialists who could help the organisation solve any long-term/more complicated problems (e.g. physiotherapists, ergonomists, OH professionals). The WHC pilot therefore also represented a body of knowledge about existing and complementary OHSR services. In practice, few referrals were necessary as the service was able to deal with most employer concerns using internal resources. The focus of this report is therefore on Levels 1 and 2.

The OHSR support delivered through the WHC pilot was designed to include advice, guidance and other services. This would include:

- advice on risk reduction processes
- interpretation of health and safely law
- sickness absence management and return-to-work advice
- demonstration of tools and aids.

The OHSR support model did not extend to other management issues (e.g. career and education, personal health services, pre-employment screening).

1.4.2 Service goals for the pilot

There were a number of goals set for the WHC pilot, these were to:

- Establish a service with the potential to significantly increase the level of healthy workplaces within small and medium sized businesses across England and Wales.
- Provide workplace health support for employers and workers who do not currently benefit from such support.
- Deliver, at a minimum, the basic principles of the problem-solving service, so that employers can resolve current and future issues themselves.
- Change employer and worker behaviours so that, ultimately, preventative measures are put in place to avoid unnecessary workplace health issues.
- Provide small and medium sized businesses with the knowledge and skills to resolve workplace health, safety and return-to-work challenges.
- Improve small and medium sized businesses' understanding of workplace health issues.
- Develop innovative partnerships that deliver a consistent service to all customers.
- Improve small and medium sized businesses' understanding of the benefits of sickness absence and return-to-work procedures.

The service was designed to enable a comprehensive evaluation. In particular, in the design of the service it was important, as far as possible given resource and time constraints, to attempt to provide a sufficiently large sample of users so that the evaluation could fully test the model. The assumptions underpinning how large the necessary sample was for evaluative purposes are outlined below.

A key issue for the design was that the service was attempting to prevent a rare occurrence, the incidence rate of work related ill-health. HSE estimates used at the time that the WHC pilot was designed, suggested that this was 0.023 per year for individuals, and the average

accident rates in SMEs varied from 0.6 per firm for enterprises with 11 to 49 employees and 3.1 for those with 50 to 249 employees. On the assumption that the service would be 20 per cent effective, the service would have to deliver to 220 people to avoid one case of ill-health. This assumption was adopted, and the performance targets for each of the pathfinders were set to ensure an effective statistical test of the model, giving the greatest opportunity for measuring its impact.

As a result of these calculations, the targets set for the service across all pathfinders were to:

- make approximately 4,750 free, initial site visits
- have a positive impact on 95,000 workers (based on an average company size of 20 workers).

It was also anticipated that 2,850 callers would need to be handled by the adviceline, and agree to participate in the evaluation during the first year of operation in order to allow an impact assessment of this element. No formal targets were, however, set for the adviceline.

1.5 THE WHC PILOT'S ADVICELINE SERVICE

The pilot's telephone adviceline was designed to offer high quality, in-depth advice to interested employers (and employees). Although aimed at employers with 5–250 employees, there were no eligibility criteria applied to the provision of this service which was available nationally and to employers of all sizes. The service operated with a dedicated team of advisers from a range of backgrounds (e.g. working in similar roles on the HSE infoline, or coming to the service with a background in occupational health).

It was anticipated that employers and workers seeking help would make initial contact through the WHC pilot's national adviceline or website. The telephone advisers were required to have sufficient skills to probe callers to find out their problem and provide competent and consistent advice. The adviceline was also required to provide a seamless referral to the regional workplace visit service where appropriate. In practice, there were actually three ways in which the service operated, and a major additional role was to handle callers put through to the service by telemarketers (a more detailed description of the actual operation of the adviceline is provided in Chapter 2, Section 2.9).

The objectives of the adviceline under pilot were:

- Be the main access point for clients of the WHC pilot, providing good customer service and useful, relevant information.
- Give OHSR support to callers by probing the caller to identify potential problems and solutions wherever possible.
- Promote the benefits of face-to-face support from an adviser to relevant callers, encouraging them to take up the offer of a workplace visit.
- To record initial data on callers for evaluation and management information purposes.
- Develop and maintain a website which should act as a signpost to the adviceline and provide basic OHSR information.

It was estimated that achieving the target level of initial workplace visits for the service (4,750) would require in the region of between 25,550 (based on one estimate) and 69,000

adviceline callers (based on another)[1] and the service manning levels reflected this anticipated volume of calls. In practice, however, call volumes were lower and the number of staff available to the adviceline was adjusted to reflect this.

1.6 THE WHC PILOT'S WORKPLACE VISIT SERVICE

Workplace visits conducted by competent OHSR advisers were anticipated to lead employers/managers through the practical measures they need to implement in order to prevent and manage ill-health in the workplace. The aim was to support employers in learning how to control the causes of ill-health within their business.

The pilot's workplace visit service operated across five regions: North West, North East (which extended into York and Harrogate in January 2007), West Midlands, South Wales (which extended into the whole of Wales in January 2007) and London. Employers were offered two visits, involving up to seven hours of contact time with an adviser. Following the initial visit, advisers issued employers with a visit report. This outlined the main topics discussed during the visit and set out actions for the employer so that they could check their progress by the time of the follow-up visit. A further follow-up telephone call was made to employers around three months after their follow-up visit. All clients of the service were offered at least one follow-up contact by the adviser after the initial workplace visit and written report. The aim of the service was that after a workplace visit and a follow-up, clients know how to manage their health and safety in the workplace.

During the visits, advisers were required to ensure that three priority topic areas were discussed with each of the employers, namely: work-related stress; musculoskeletal disorders/manual handling; and return-to-work procedures following employee sickness absence. The service was designed also to focus on health issues within the workplace in a wider sense. However, advisers offered a tailored service, dealing with the individual concerns of employers more generally in relation to health and safety as well as tackling service priorities.

Each of the regional pathfinders was bound to deliver a standardised service, and meeting the national quality standards within the structures set for the WHC pilot. However, there was deliberately some variation in the way in which the pathfinders were configured to allow a comparison of different approaches, and play to the existing strengths of providers.

All advisers were qualified to DipOSH standard and also had relevant experience working with employers. Training specific to the WHC pilot was available to all, and this involved a combination of tailored, off-site courses, and the use of distance learning packs.

Each regional pathfinder also operated a regional stakeholder forum which was anticipated to help stimulate demand for the services of the WHC pilot regionally by influencing key decision makers and stakeholders in each area.

---

[1] *There is clearly a large range here. The lower estimate comprises the minimum number of calls required from employers in the pilot areas; plus the same number of calls from employees (based on Safety and Health Working in Scotland which showed a 50:50 split between employers and employees); plus minimum number of calls needed for evaluation purposes from employers outside the pilot areas of just over 2,850 and a similar number assumed from employees. The upper estimate is based on the assumption that the adviceline would receive one-third of the calls normally taken by the HSE infoline during its first year of operation. These details were outlined in the* HSE's Intervention Logic Model and Trajectory Planning Document for WHC *(Version 0.8, November 2005 was the version of this document in use during evaluation planning and design).*

1.7 THE CURRENT POLICY AGENDA

The results of this evaluation will not only attempt to provide an assessment of the OHSR model piloted, but should also help contribute more widely to the current policy agenda.

Work is underway to test out alternatives to the OHSR model tested by the WHC pilot. NHS Plus was launched in November 2001 with the aim of increasing the availability of occupational health services for small and medium sized businesses in England. It also gives improved provision of occupational health services for the NHS workforce. One hundred and eighteen NHS Occupational Health Departments are currently NHS Plus accredited and provide a range of services including supporting compliance with health and safety legislation, helping in the management of sickness absence and work related stress, health surveillance, advice on complex HR issues and promoting the wider well-being of staff. Recently granted a funding extension, six new demonstration sites will operate during 2009, sharing £11m of capital funding, and which build on the work of five existing sites which were allocated £10m in April 2007. The additional sites will test further innovation in the way occupational healthcare services are delivered. NHS Plus aims to tackle the work-related health problems suffered by employees and help them to get back to work.

The news of these additional pilots follows the publication of a report by Dame Carol Black, *Working for a Healthier Tomorrow*,[1] which was based on a range of evidence that work can be good for health, reversing the harmful effects of long-term unemployment and prolonged sickness absence.[2] This review, commissioned by the government, sets out a vision for health and work in Britain in which the relationship between health and work becomes universally recognised as integral to the prosperity and well-being of individuals, their families, workplaces and wider communities. Within this vision, healthy workplaces are seen as key to preventing illnesses, along with good jobs (which are well designed and offer good relationships with managers and co-workers, for example). Taking steps to intervene early in the case of any health problem is also a priority within the review, through better links between healthcare professionals and employers/employment. The review specifies the importance of employers going beyond compliance with health and safety legislation, extending their agenda into health and well-being. It also highlights the difficulties that smaller organisations can face in accessing occupational health services.

The Government's response to the review[3] highlights the actions that will be taken at three levels: individuals, healthcare professionals, and employers. For individuals these plans focus on piloting 'Fit for Work' services providing improved advice about occupational health from GPs, and which relate to a new 'fit' rather than 'sick' note. Also a greater prominence will be given to funding services for people with mental health conditions. The government is also committed to providing better advice and training to healthcare professionals which will allow them to help their patients back to work. Employers are to be given better information about the costs of absence and support for individual employee health issues. SMEs are specifically mentioned as needing particular support, and an occupational health telephone helpline is discussed as a way of meeting their needs. Piloting

---

[1] Black, C *(2008)* Working for a Healthier Tomorrow, *London, The Stationary Office*

[2] *An important text in this field is Waddell, G. and Burton, K. (2006*) Is Work Good for Your Health and Well-Being?*, London, The Stationery Office.*

[3] *Department of Work and Pensions and Department of Health (2008)* Improving health and work: changing lives, The Government's Response to Dame Carol Black's Review of the health of Britain's working-age population*, London, TSO.*

of this helpline will complement the work of NHS Plus. In addition, using local partnerships and business networks, there are plans to assess local business needs through 'gateways' to the national occupational health telephone helpline. These gateways will signpost employers to other local services and support, as well as acting as the entry point to the helpline.

1.8 CONCLUSIONS

Since the inception of the WHC pilot, there has been an increasing policy focus on both occupational health, and how best to provide support to SMEs in managing workplace health issues. The results of the WHC pilot, therefore, have direct relevance to the current policy agenda and offer insights gained from working with SMEs that will be useful in planning any future activities. The case for a business-led health and well-being consultancy service will also need to be considered in the context of the WHC pilot (as stated in the Government's response to the Carol Black review).

2 EVALUATION DETAILS

This chapter presents the objectives set for the evaluation and an overview of the different evaluation components.

2.1 CHAPTER SUMMARY

- The evaluation was required to provide an assessment of the impact of the WHC pilot and the processes by which it operated.
- The focus of the evaluation was on 'final' outcomes, which included changes in the number of:
  - cases of ill-health and those caused, or made worse, by work, and the related sickness absence rates
  - injuries in the workplace.
- In addition, the intermediate steps that may in turn lead to these outcomes were measured. These were:
  - whether there is a formal procedure in record-keeping behaviour in relation to absence, accidents and work-related illness
  - whether regular risk assessments are undertaken
  - whether respondent had received employer provided training on health and safety (not via the WHC pilot)
  - whether there is a formal procedure to investigate the causes of illness
  - whether there is employee involvement in health and safety
  - whether person undertaking risk assessment has received formal training
  - whether person undertaking risk assessment has a health and safety qualification
  - whether clear guidance is available on helping employees back to work following sickness absence.
- The evaluation involved three main elements (although a range of other data was also collected):
  - an impact survey, using two survey waves and involving a group of non-users to act as a comparator group
  - analysis of provider data on how many users were involved in what service elements; also, the views of staff about the operation of the service
  - qualitative work with users to determine their views on the service and the impact on their organisation of being involved with it.

2.2 EVALUATION OBJECTIVES

The HSE commissioned a research team led by the Institute for Employment Studies (IES) to conduct an evaluation of the WHC pilot. This evaluation had the following objectives:

1. To assess the net impact of the service on the incidence and duration of occupationally related ill-health and injury, and to identify which model of support (including the adviceline alone) has the greatest impact.

2. To assess the operation of the regional pilots, identify their costs and benefits, and perceived barriers to full use of service; also, to assess the key lessons for improving the quality, effectiveness, efficiency and sustainability of any OHSR support services in the future. The evaluation explored triggers for use, and user satisfaction with the service.

3. To assess the operation of the national adviceline, identify its costs and benefits, and perceived barriers to full use of service. This should include an assessment of the key lessons for improving the quality, effectiveness, efficiency and sustainability of the adviceline in the future. The evaluation should explore triggers for use for both employers and employees, and satisfaction of the service from both these groups.

In order to estimate the impact of the services, the following user-related outcomes were used:

- The change in the number of cases of ill-health caused, or made worse, by work (a 'final' outcome of the service).

- The change in the numbers of injuries in the workplace (another 'final' outcome).

- Any other benefits of OHSR support for employers, such as improved control of risks (e.g. lower exposure to hazards, greater use of risk assessment), reduced days lost, improved absence management and reductions in the duration of absence, reduced severity of health and safety failures (such as fewer days lost where a case of ill-health occurs, or less severe injuries when accidents occur) etc. These are considered to be intermediate outcomes as they could reflect an intermediate step in achieving final (e.g. health) outcomes.

2.2.1 Changes to these objectives

As discussed earlier in Chapter 1, Section 1.3.2, targets were set for the number of service users required to allow the impact of the WHC pilot to be evaluated, some of which were not met.

As the pilot progressed, it became clear that initial estimates of the number of calls to the adviceline (21,550 to 60,000) were significantly greater than the actual number of received calls. In order to measure the impact of the adviceline itself, it was calculated that a minimum of 2,850 adviceline callers from outside the pathfinder regions would be required during the first year (as specified in Chapter 1, Section 1.3.2). The number of adviceline users available for evaluation purposes (i.e. the number of adviceline users who both agreed to participate in the evaluation, provided sufficient details to allow them to be contacted and which did not go on to receive a workplace visit), was in fact 2,607 over the course of two years, and just 733 during year one of the WHC pilot's operations. The reasons for these low numbers are discussed in Section 2.3.1. It therefore became clear relatively early in the evaluation that an impact assessment of the adviceline would not be possible. Therefore, evaluation work on the adviceline has been limited to the process of its delivery.

Objective 1 of the evaluation is therefore better expressed as: to assess the net impact of the **visit service** on the incidence and duration of occupationally related ill-health and injury.

In summary, there were therefore two main elements to the evaluation:

- A process evaluation to investigate service delivery (including costs) and penetration of both the adviceline and the workplace visit service.
- An evaluation of the initiative's impact in terms of intermediate and final outcomes as well as an estimate of the overall costs and benefits of the WHC pilot, but only in relation to the workplace visit service.

2.3 OVERVIEW OF EVALUATION COMPONENTS

A multi-stranded methodological approach was developed to meet the objectives, which included the following:

- An analysis of the adviceline and pathfinder management and monitoring data (the Case Management System or CMS) completed by WHC pilot staff, to provide information on service inputs.
- Interviews with key project staff at regular intervals to allow the evaluation to consider regional experiences and understand the issues involved in service delivery.
- A two-wave survey of both employers using the service (the adviceline and the visit to service users) and employers not using the service (to act as a comparator group to users).
- User case studies: interviews were conducted with staff, including those with managerial level responsibilities, and other workers, from organisations participating in the programme.

In addition, during the course of the evaluation, further evaluative elements were added. These were:

- A survey of users and a comparator group to determine ways in which SMEs view staff health and welfare and what provisions they offer to their staff. This was to allow a comparison between WHC pilot users and other employers.
- A survey of users to determine the costs involved (in terms of staff time and resources required to implement changes recommended by the advisers) in being a WHC pilot user. This was to inform understanding of the main actions taken by employers following their contact with the service and to provide some broad estimates of the costs involved for employers in making different types of changes.
- Telephone interviews with 48 users of the telephone adviceline. This allowed a better understanding of the way in which adviceline users viewed their use of the service and their assessment of the types of changes they had made as a result. It was commissioned when it became clear that an impact assessment of this aspect of the pilot would not be possible.

Each of these elements is discussed in the sections which follow.

2.4 ANALYSIS OF PROVIDER DATA

WHC pilot providers collected a range of data for evaluation purposes. The main use for this data was to understand levels and type of service use, and to inform the cost-benefit analysis.

In addition, staff involved in the delivery of the WHC pilot were also asked to discuss their experiences to inform the process evaluation.

2.4.1 Case Management System

The management information database maintained by the adviceline and pathfinder staff included data on all users who had been in contact with the service. This was known as the Case Management System (CMS).

The adviceline maintained its own records of the content and duration of calls, as well as information about the characteristics of users. In addition, on a linked, but separately maintained database, each of the five pathfinder regions recorded details of their contact with employers referred by the adviceline or secured through outreach efforts locally. These records provide a full account of the activities of the service, and have been analysed at various stages throughout the evaluation to provide up-to-date information on service use and to help to understand service progress. In this report they have been used mainly to explore the number and types of service users.

IES was provided with full access to the CMS over the course of the two-year pilot. There were 17,526 user records available in this dataset for analysis. The data was converted from a relational database format into an SPSS format for analytical purposes. The main data available included basic information on the organisation (categorical data on firm size and sector), and details of the service inputs for each user. This data was collected by advisers either during a telephone call or a visit. The data was then compiled by either advisers themselves or administrative staff.

CMS data on the characteristics of visit recipients is almost 100 per cent complete. Data is also almost 100 per cent complete for users of the adviceline who are recorded as having received telephone 'advice'. However, there is little or no information for the remainder of callers (i.e. those receiving information, or categorised as 'other' types of call).This is because a large number of calls to the adviceline did not result in any meaningful contact, constituting merely a refusal to participate after the caller had been passed on from telemarketing, or instances of requests for basic information. The provider data in the CMS, therefore, is best considered as a log of all calls handled by the service, with additional information available for those employers that actually used the service, either to secure a referral to regional pathfinders, or to receive telephone advice.

It is worth noting how the almost 100 per cent complete data was achieved for future reference. Providers were tied in, within their contracts, to supplying data that was both complete and accurate. Quality checks were consistently applied to the data, and frequent analysis (every six months) undertaken by the evaluation team. This level of scrutiny being applied to the data ensured that consistent completion was secured across all the different providers. Also, the use of a single system for recording all the outputs of the regional visit service was important to allow easy access to the data at a national level.

The CMS was also important in identifying employers that were prepared to participate in the evaluation of the WHC pilot. Representatives of all WHC pilot users were asked, at their point of entry to the service (either the adviceline or regional pathfinder), whether they were happy for their details to be passed onto the service evaluators. Overall, the proportion of adviceline callers agreeing to be contacted was low (just 23 per cent of those not going on to use the visit service). However, this reflects the high proportion who did not receive any 'advice' (as noted above). Amongst callers receiving 'advice' the proportion was much higher (58 per cent), and higher still amongst visit recipients (62 per cent).

2.4.2 Cost information

Information on the costs of service delivery was provided to the evaluation team. This cost data included costs spent by the HSE in managing and overseeing the service, the costs of marketing the service and the costs of running the adviceline and the individual pathfinders.

2.4.3 Supplementary information from interviews with provider staff

The evaluation included ongoing interviews with provider and HSE staff to form part of the process evaluation. This allowed a full understanding of the progress of the WHC pilot during the initial development phase all the way through to the wind down of the pilot initiatives. A total of five rounds of interviews were conducted over the two-year operational period of the service.

Interviews were conducted either face-to-face or over the telephone with:

- HSE policy and operational staff involved in the WHC pilot
- the project management contractor employed by the HSE to oversee the work of the five pathfinder areas and maintain the CMS (holding the management information for the WHC pilot)
- the adviceline manager and staff
- project managers and advisers in each of the five pathfinder regions.

The results of these interviews were used to inform the six-monthly progress reports, feeding back operational issues as the service progressed. In this final evaluation report, this interview data is used where insights from provider staff act as a useful additional and complementary source of information on service operation to that provided by CMS data.

2.5 IMPACT SURVEY

The main evaluation component used to estimate the impact of the WHC pilot was a survey of service users and a comparator group. The impact survey involved two waves, and each interview lasted an average of 15 minutes. The basic approach is to compare changes between the survey waves experienced by service users, and to determine whether these changes are more than those observed amongst the comparator group over the same period. If WHC pilot users experience more changes to their outcomes than the comparator group, these changes can be attributed with greater confidence to the intervention (i.e. use of WHC) than in the absence of data describing the counterfactual position. A more detailed description of the analytical techniques used is provided in Chapter 5 when the impact of the service is discussed.

The survey was conducted over the telephone using a computer assisted telephone interview (CATI) script. The first wave of the survey took place between July 2006 and August 2007, with participants from the initial survey being re-contacted in the follow-up survey 12 months later. The questions involved asked users about: the characteristics of their organisation; the health and safety practices in place; attitudes towards health and safety; and estimates of absence and accident rates. The questionnaires and information sheets used in these surveys can be found in Appendices 7, 8, 9, 10, 11 and 12.

2.5.1 Initial survey of pilot users

The survey of users was based on the users of the adviceline and of the workplace visit service within the WHC pilot. For practical purposes, the survey population was limited to users whose first contact with the service took place between February 2006 to May 2007.[1] This allowed a sufficient period of time for a follow-up survey to be completed one year on from their initial survey, and for this to happen within the time constraints set for the evaluation. In addition, the sample was restricted to users from this time period who had agreed for their details to be passed onto the evaluation team. These employers were then contacted to participate in the impact survey.

During the 16 months when sampling took place for the survey and details of 733 adviceline users and 1,432 visit recipients were passed over from providers (via the CMS) to the British Market Research Bureau (BMRB) as potential survey respondents. A separate eligible sample was established each month and the survey took place on a rolling basis. These service users were then sent an advance letter and a corresponding information sheet a week before they were contacted. The information sheet provided them with an indication of some of the more difficult questions asked during the survey, where it might be necessary for them to consult supporting information in formulating their answers (principally, questions about accident and absence rates). Telephone interviewers then contacted employers and asked them to participate in an interview. Users could arrange for a call-back to allow them to take part in an interview at a convenient time for them.

The design of the survey, with users drawn from provider records monthly, attempted to standardise, as far as possible, the elapsed time between initial contact with the WHC pilot and the initial survey. The actual time between first contact with the WHC pilot and the completion of the initial survey was typically between two and three months, although this ranged from six weeks to nine months as interviewers, wherever possible, pursued an interview with the named person who was responsible for the organisation's liaison with the WHC pilot. It was therefore sometimes necessary for interviewers to have to re-contact a single organisation multiple times before a suitable time for the interview could be found.

2.5.2 Initial survey of comparator group

In order to establish some form of counterfactual position (i.e. what would have happened in the absence of the WHC pilot), a comparator group was included, comprising employers who had not used the WHC pilot. The sample for these employers was drawn from the Dun & Bradstreet database. A monthly selection was made from all SMEs in England and Wales, excluding those in the five pathfinder regions. Whenever a service or pilot is based on voluntary participation, it is impossible to determine in advance which organisations will go on to use it. Therefore, by selecting organisations that would be ineligible for pilot use (i.e. the visit service) due to their geographical location, this guarantees an uncontaminated comparator group. The sampling frame was selected each month to reflect the characteristics (in terms of size and industrial sector) of WHC pilot users submitted to BMRB through the CMS during the previous month (i.e. those users agreeing for their details to be passed on).

---

[1] *Users coming into the service operation later than this were not included as there was insufficient time in the evaluation plan to allow for adequate follow-up of these users. These later users were involved in other evaluation elements, however; see sections on estimating costs to business survey, and the survey on existing health and welfare provision.*

The comparator sample selected each month was firstly contacted so they could be 'screened' (to check they met the criteria used in determining eligibility for the WHC pilot, namely their size and the fact that they had no existing access to OHSR support). This consisted of BMRB telephone interviewers calling potential respondents approximately two weeks before the monthly round of interviewing began. At the same time, interviewers collected contact details of the person responsible for Health and Safety at that workplace. They were then told that they would shortly receive an advance letter explaining the survey and an information sheet which were posted to them. Following this, the respondents were contacted by telephone in the same way as WHC pilot users. Comparator respondents were asked the same question set as users apart from those directly related to the WHC pilot, meaning that their initial interview was slightly shorter, on average.

2.5.3 Follow-up surveys

The follow-up survey re-contacted all users who had taken part in the initial survey and who had agreed to re-contact. The proportion of employers agreeing to a re-contact was high: 87 per cent of adviceline users, 91 per cent of visit recipients and 95 per cent of the comparator group agreed to be contacted as part of the follow-up survey.

The follow-up survey took place 12 months after the initial survey. Employer details were issued to interviewers in monthly batches according to when respondents had been interviewed at the baseline/initial survey. Interviews for the second wave of the survey were conducted using CATI between July 2007 and July 2008, with interviews lasting 15 minutes on average.

The number of users available for the initial survey was far smaller than anticipated. This was largely due to the low throughput of adviceline users (as discussed in Section 2.3.1). This meant that the number of comparator group interviews conducted in the initial survey greatly exceeded the number required for an adequate comparator group for the impact assessment. The initial estimates of the size of the comparator group was based on the fact that it would need to be large enough to function for a sample of 6,000 achieved adviceline interviews (and separately to 1,130 visit service user interviews). Therefore, a ratio of 1:1 was anticipated between adviceline users interviewed and the comparator group. As the number of achieved adviceline interviews was so much lower, the actual achieved ratio of adviceline users and visit service users (when added together) and the comparator group was 1:4.4. A decision was therefore taken to randomly select just 60 per cent of the comparator group available from the initial survey to follow up. This still meant that the ratio of all users interviewed to the comparator group was 1:2.5 which was felt to be more than sufficient. The employers selected for inclusion in the follow-up survey were contacted in the same way as the user group.

Interviewees were those who had acted as the main contact for the WHC service, for the user group, and the person with 'responsibility for health and safety' within non-user organisations. Within user organisations, if the main contact had left the company, interviewers asked for a replacement who was the person with 'responsibility for health and safety'.

2.5.4 Response rates

Details of the response rates for the impact surveys are provided in Table 2.1 (with further explanation provided in Appendix 4, Table A4.1). The baseline survey achieved an overall response rate of 62 per cent[1], and resulted in 309 completed interviews with Level 1 users, 994 with Level 2 users, and 3,271 with comparators. The follow-up survey achieved an overall response rate of 60 per cent, and resulted in 153 completed interviews with Level 1 users, 542 with Level 2 users, and 1,694 with comparators.

Table 2.1: No. of participating employers and response rates – impact survey

		Type of employer		
Stage in survey		**Adviceline user**	**Workplace visit recipient**	**Comparator group**
No. of users who agreed for details to be passed on	(A)	773	1,432	9,966**
No. of participants in initial survey	(B)	309	994	5,680 (3,271*)
Adjusted response rate* %	(A/B (minus unobtainable numbers) x100)	48%	72%	61%
No. from initial survey agreeing to participate in follow-up	(C)	268	906	3,114
No. of participants in follow-up survey	(D)	153	542	1,694
Adjusted response rate*	(D/C (minus unobtainable numbers) x100)	61%	65%	58%

* The actual number of completed comparator interviews in wave 1 was 5,680 but only 60% of these were used in the impact survey – the other 40% were used in the health and welfare provision survey.

** This is not the 'number of users who agreed for their contact details to be passed on' as suggested by the row heading for the table. Rather, this is the size of the sample purchased from Dunn and Bradstreet to serve as the sample frame for the comparator group survey.

Source: IES/BMRB baseline and follow-up surveys of WHC users 2006/2007 and 2007/2008

2.5.5 Weighting

Data could potentially have been weighted at both the initial and follow-up survey waves. At the initial survey wave, this would ensure that the characteristics of the sample achieved in the impact survey reflected those of the 'population' of WHC pilot users (i.e. all employers involved in some capacity with the WHC pilot in the relevant months). The population data available on users comes from the CMS data, and is limited to information on employer size

[1] *This response rate excludes contacts where the number was unobtainable; the contact was unknown at the number or had left the company or where the business had closed down. This is referred to as the 'adjusted response rate', rather than the raw response rate.*

and sector. At the follow-up survey wave, weighting would address any bias introduced between the two survey waves by differential response rates amongst respondents with different characteristics.

Initial survey wave

In determining whether the characteristics of users of the adviceline involved in the impact survey match those of adviceline users in general, there is an issue regarding what should be considered to be the 'population' for this service.

Whilst records suggest that 14,841 callers had some form of contact with the adviceline, it is questionable whether all of these employers should rightly be considered service 'users'. Over 7,000 records, for example, are categorised as call type 'other', or have no data on the type of call. A large proportion of these will be employers that were logged, but whose contact with the adviceline was limited to a refusal to take part following a call from a telemarketer. An additional 1,300 records are categorised as involving the provision of information, but without any caller details (e.g. on size) recorded. Almost 3,500 of the adviceline users logged by the adviceline used this aspect of the service merely to secure a visit. An additional complication is that there was no eligibility criteria applied to the adviceline, so employers of all sizes could use the service. The evaluation was specifically asked to focus solely on SMEs' use of the service, so only SMEs were included in the impact survey. Appendix 4, Table A4.2 presents a comparison of the profile of adviceline users involved in the survey with those for all adviceline callers.

The employers involved in the survey are therefore adviceline users with between 5 and 250 employees, and without access to existing OH support, as all other users were excluded. Additionally, these had generally used WHC to receive telephone advice, as users involved in 'other' types of calls did not provide contact details and/or agree to participate in the evaluation.

Therefore, the adviceline users who provided their details and agreed to participate in the evaluation are not typical of all adviceline callers. Given the complications with the population information, it was not possible to accurately isolate the population or, therefore, to weight the adviceline survey sample. This has implications for the way in which this data can be interpreted. It is not, for example, possible to present confidence intervals[1], as this relies on the survey sample reflecting the population.

Weighting was also considered in relation to the WHC visit recipient sample. The profiles of respondents to the impact survey were compared to the data held on 5,413 recipients of an initial WHC visit in terms of size and sector. One difference was detected between the sample and the population, in that small public sector organisations were slightly underrepresented. A weight was created to address this. When this weight was applied to the data and some key tables compared with and without weighting, the differences were marginal (both in terms of proportions and confidence intervals). As a result, the decision was taken not to weight the data on visit recipients (Appendix 4, Table A4.3 provides profile data for the sample and population). It is worth noting that in the impact analysis, employer characteristics are taken into account as part of the standard analytical techniques used.[2]

---

[1] *Confidence intervals are used to indicate the reliability of an estimate.*

[2] *The technique used in the impact analysis is difference in difference which factors in observable employer characteristics when determining the impact of WHC involvement on outcomes.*

Follow-up survey wave

In order to gauge whether any attrition bias had been introduced, probit analysis[1] was used to estimate the probability of participation in the second survey. This was conducted in STATA[2]. A separate analysis was conducted for the adviceline users, the visit recipients and the comparator group. None of these analyses was significant. The only detectable difference was a slight difference in the response of employers from the commercial services sector to the follow-up survey (they were less likely than employers from other sectors to respond), but only amongst the comparator group. This difference was felt to be insufficient to warrant the use of weighting. The regression models used in this analysis are provided in Appendix 16.

No weights were therefore applied to either the interviewed WHC pilot user sample or the comparator group.

2.6 EMPLOYER CASE STUDIES

The purpose of this element of the evaluation was to better understand why and how employers used the pilot, and what they feel is the impact on their individual organisations.

During the impact survey employers were asked whether they would be prepared to talk about their organisation and their use of the WHC pilot in more detail with a researcher. Around one-third of respondents indicated that they were willing for further contact to take place. Using this list, employers were divided up according to the region in which they operated, and ten case studies were pursued in each of the five pathfinder regions. In fact, only nine case studies were completed in Wales and seven in the North East, but 12 completed in the West Midlands. A total of 48 case studies were therefore undertaken.

The case study sampling design included employers of different sizes but with a focus on involving smaller businesses to reflect the WHC pilot user profile (the mean organisation size for users of the workplace visit service was around 20 employees, as presented in Chapter 4 of this report in Section 4.3). The sample of organisations involved as case studies is in no way meant to be representative of users as a whole, but simply reflects the experiences of a range of different organisations using the WHC service.

Each case study consisted of:

- discussions with the adviser responsible for providing the workplace visit
- consideration of an adviser report of this visit
- face-to-face or telephone-based discussions with management and employees (where possible).

Each case study was contacted twice – once during 2006/07 and again one year after the first visit during 2007/08. The questions asked during case studies focussed on why employers

---

[1] *Probit analysis is a type of regression used to analyse binomial response variables. See Wooldridge, J. M. (2003)* Introductory econometrics: a modern approach*, Ohio, South-Western, for further details on this method*

[2] *STATA is an integrated statistical package used in data analysis, data management, and graphics. See www.stata.com for further details*

became involved in the pilot, their views on, and details of, the service they received, and examples of how the service had made a difference to their health and safety practices.

Twenty-six of the original 48 employers took part in the second stage visit. Reasons for non-participation varied. Some of the organisations were no longer in operation, and in others the main contact was no longer working there. Most employer contacts that were able to take part in a second case study did so.

The interviews with the main contact at the organisation receiving the workplace visit collected information on:

- the person's job title, experience within the organisation and role with regards to health and safety
- the nature of the organisation and how health and safety had been managed in the past (i.e. prior to WHC)
- how the organisation came to be involved with WHC
- WHC services used, areas of discussion, tools used and satisfaction with the service received
- outcomes of and changes made as a result of the organisation's involvement with the WHC service.

In addition, the employer reports and interviews with WHC advisers provided background and corroboration on the issues identified, services used and outcomes achieved. Advisers' views were collected on any barriers that the organisation may face in moving forward. The employee interviews provided details on workplace hazards and confirmation on issues such as staff involvement in health and safety and levels of sickness absence. However, in most cases, employees were not involved directly with the service and were not able to comment on WHC. The second case study visit focussed on any changes made, and the sustainability of these changes.

The interviews involved in each case study were fully transcribed and the transcripts used to construct detailed notes for each employer. From this a full write-up of each case study was produced which included the views of both the advisers responsible for conducting the workplace visits, and staff within the employer. These case study write-ups were used to inform this report and were analysed for common themes.

A description of users participating in the evaluation as case studies is provided in Appendix 6, Table A6.2.

2.7 SURVEY OF HEALTH AND WELFARE PROVISION

The purpose of this survey was to establish attitudes towards, and provision of, workplace health and welfare services amongst WHC pilot users and a comparator group. As noted in Section 2.4.1, the impact survey was limited to users whose first contact with the service took place before May 2007. All users of the WHC pilot between May 2007 and January 2008 who agreed to take part in the evaluation were selected for a survey which collected details of the health and welfare provisions offered to staff prior to participation in the WHC pilot. As in the Impact Survey, representatives of all WHC pilot users were asked, at the point of entry to the service (either the adviceline or regional pathfinder), whether they were happy for their details to be passed onto the service evaluators and this was recorded on the CMS. Details of all employers agreeing to participate in the evaluation were passed from providers (via the CMS) to BMRB. A separate eligible sample was established each month

and the survey took place on a rolling basis between October 2007 and March 2008. Potential respondents were sent an advance letter a week before they were contacted to inform them about the survey.

In order to allow a comparison between the existing health and welfare provisions amongst WHC pilot users with other SMEs a comparator group of SMEs was included in the survey. Potential respondents for this comparator group survey were drawn randomly from the comparator group that had participated in the initial wave of the impact survey (see Section 2.4 earlier in this chapter for a description of how the impact survey selected employers for the comparator group). Forty per cent of respondents to the initial wave of the impact survey were selected to participate in the survey of health and welfare provision rather than the follow-up impact survey.[1] All of these employers were approached to participate in the survey of health and welfare provisions. This means that the comparator group were interviewed in the initial wave of the Impact Survey, but then had a second interview as part of the health and welfare survey.

A total of 739 WHC pilot users and 1,030 comparator employers participated in the survey, 76 per cent and 59 per cent respectively of those asked to take part.[2] Table 2.2 provides a further breakdown of the response rate, and Table A5.1 in Appendix 5 offers a more detailed breakdown of the reasons for non-response.

Table 2.2: No. of participating employers and response rates – health and welfare provision survey

Type of employer		Workplace visit recipient	Comparator group
No. available to participate in the survey	(A)	1,033	1,908
No. involved in survey	(B)	739	1,030
Adjusted response rate	(B/A (minus unobtainable numbers) x100)	76%	59%

Source: IES/BMRB survey of SME health and welfare provision, 2007/2008

[1] *As the number of comparator interviews conducted in the initial impact survey exceeded the number required for the follow up survey – see Section 2.4 for further details.*

[2] *A separate report is available which analysed the results for the comparator group only, providing an overview of OH usage in the absence of WHC. The report is currently being prepared for publication by the HSE.*

2.8 ESTIMATING COSTS TO BUSINESS SURVEY

The *Estimating Costs to Business survey* was designed to provide some additional details on employer costs to supplement the information collected in the impact survey. Respondents are not representative of WHC pilot users, and the data is useful for indicative purposes only.

In order to estimate the costs incurred by employers associated with their participation in the WHC pilot, an additional survey of WHC pilot users was conducted. This was a paper based survey administered by provider staff. The questionnaire asked about time and financial costs incurred as a result of both using the WHC pilot as well as implementing any changes recommended by the WHC pilot.

During the period between September 2007 and April 2008, WHC advisers conducting follow-up workplace visits with employers left a copy of the *Estimating Costs to Business survey* on site and asked employers to complete it and return it to BMRB. If respondents had not returned their questionnaire after one month they were re-contacted by telephone by a BMRB interviewer who reminded the respondent to return the questionnaire. Alternatively, the interviewer offered to take the respondents' answers over the telephone.

Whilst providers were asked to administer the questionnaire to all users receiving a follow-up visit during this time, it is unclear precisely how many questionnaires were distributed. Some data is available from provider records on which organisations were given a questionnaire, but this data is incomplete (as evidenced by a small number of companies returning a questionnaire even though provider records do not show them as receiving one). The best available estimate suggests that approximately 350 copies of the questionnaires were distributed by advisers. BMRB received a total of 154 returned paper questionnaires and achieved 30 interviews over the telephone (184 in total). The response rate for this survey is therefore somewhere in the order of 50 per cent.

A copy of each of the questionnaires used in this survey is provided in Appendices 14 and 15.

2.9 TELEPHONE INTERVIEWS WITH ADVICELINE USERS

In order to provide supplementary information to the Impact Survey, in the absence of sufficient adviceline users to conduct a full impact assessment of this aspect of the service, a number of more in-depth interviews were conducted with adviceline users. These covered their views on the service, how they had used it, and any views they had on the impact of the service on their organisation.

Forty-eight short telephone interviews (15 to 20 minutes on average) were conducted with users of the adviceline between October 2007 and April 2008. Interviews were conducted in two batches over a roughly six-month period. This design allowed the required numbers of potential respondents to build up whilst limiting the amount of elapsed time between adviceline call and interview.

Potential interviewees had to have agreed to be contacted by the evaluator and to have only used the adviceline for the purpose of receiving advice, rather than information or to arrange a visit. There were 149 potential participants available to the evaluation. There were two fieldwork batches. Employers involved in the first batch of interviews were selected to provide coverage of a range of employer sizes and industrial sectors. The majority of this first batch tended to focus on requests for advice on general health and safety, health and safety policy/ies, and risk assessments. There was a desire from the HSE to better understand how the adviceline worked when occupational health advice was administered, therefore an

effort was made in the second batch of interviews to select interviewees who had raised issues related to absence and work-related health. The interviews were transcribed, and the resulting notes used by researchers to compile an employer report for each one. These reports were then analysed for common themes.

A description of participants in these interviews is provided in Appendix 6, Table 6.1. These users should be seen as in no way representative of adviceline users more widely. Their experiences merely offer insights into how some users responded to the service.

2.10 LIMITATIONS OF THE EVALUATION APPROACH

The evaluation of the WHC pilot was put at the heart of service design. Despite this, there are a number of limitations to the evaluation approach, which are described below. Overall, the service was complex in delivery terms, and was set challenging goals. Evaluating how and whether these were met was also challenging in evaluation terms.

2.10.1 Estimating impact

The ideal situation for an impact evaluation is to have randomised assignment to the treatment and comparison groups. This is rarely achieved in social research for a variety of political and ethical reasons. Most impact evaluations therefore rely on a quasi-experimental design, where different sampling procedures apply for the selection of the project and comparator groups. This limitation applies to the evaluation of WHC.

A similar problem is that an impact evaluation should ideally have access to data collected from participants prior to the start of service operation. This forms a true baseline measure of their practices and issues which is completely untainted by their participation in a service. However, with a voluntary programme such as WHC, operating across such a large geographical area and with relatively loose participation criteria, it would be prohibitively costly to collect baseline data in this way. There is simply no way to know which employers will take up the offer of a service in advance, and there are too many potential participants to survey. In this case, employers participating in the programme were asked, retrospectively, to discuss their practices and records held prior to contact with WHC. This is not ideal, but is a common methodology employed to construct useful baseline data but one which is reliant on accurate respondent recall.

Another limitation is that only users from the first 15 months of operation were included in the impact assessment (due to practical issues regarding the length of time available for tracking users). Thus it is possible that there is something different about these users than other users, which it is not possible to detect, or for the impact assessment to take account of.

2.10.2 Assessing the pilot's adviceline

Due to the small numbers of adviceline users available to the evaluation, it was not possible to conduct an impact assessment of the adviceline. This is despite the fact that there were over 14,000 calls handled by the service. The main problem is that the adviceline was actually used in three different ways.

1. **As a part of the service marketing**. Telemarketers would refer potentially interested clients onto advisers for them to provide further background to the service. In many of these cases, employers opted out of the service, leaving no or few details on record. The vast majority of these employers were therefore not available to the evaluation at all.

2. **As the administrative arm of the visit service**. Service marketing efforts focussed primarily on employers from the five pathfinder areas, and therefore a large proportion of callers coming into the adviceline were eligible for the free workplace visit. The vast majority of these employers preferred to wait for advice until the point of the free visit rather than discuss any issues over the telephone and their contact with the adviceline was therefore limited to a referral onto their relevant pathfinder. These employers were used to evaluate the workplace visit service.

3. **As an adviceline**. Only a relatively small number of employers used the service in this way, but these are the users for whom useful records exist.

There are therefore difficulties in determining what the appropriate adviceline 'population' is for evaluation purposes (as discussed in Section 2.4.5). Should the focus be just those receiving some form of advice, or all those entering the service? In understanding the operation of the service as a whole it is important to consider all calls handled, but the details on many of these employers are non-existent or very minimal. In drawing out wider conclusions to other potential advicelines, however, it may be more appropriate to focus on those receiving advice, but whilst we know more about these employers, the numbers available are low. The conclusions which can be drawn from this evaluation about the adviceline are therefore limited.

2.10.3 Reliance on respondent recall and candour

As with most survey-based approaches to data collection, the impact survey is reliant on respondents being able to accurately answer the questions posed. There are two issues which can affect respondent accuracy.

Weaknesses in employer records/recall

The first of these is whether respondents are in a position to provide accurate information. They may be unable to recall what has happened within their organisation, know what systems are in place, or what changes have been made. All surveys used in this evaluation made attempts to speak to the most appropriate contact with the organisation, and gave advance warning of the questions to that person to allow them to prepare. Despite these efforts, however, the recording systems employers have in place may not support accurate responses. Within the context of this evaluation, assessment of the impact of WHC on final outcomes, in particular, is limited by the extent to which employers are able to provide accurate data on absence and accident rates within their organisation.

Another issue is that impact assessment requires that comparable data is available from two different time points to allow change between these points to be monitored. Whether employers were able to provide comparable data is questionable. The main issue is that one of the principal objectives of the service was to improve health and safety systems, including recording procedures. It is therefore possible (and probable if the service met its objectives) that the ability of WHC users to accurately provide data on absence and accident rates improved over time as their record-keeping improved. The way in which WHC users respond to the questions could therefore have changed between the two survey waves. An additional complication is that similar 'corrections' may not occur amongst the comparator group. Ideally, the evaluation would have access to objective data monitoring absence and accident rates which are not reliant on employer record keeping.

The available data on final outcomes is therefore not ideal, as it is subject to a range of practical constraints related to data accuracy. These issues, however, are common evaluation problems.

Social desirability bias

Another factor which can affect the accuracy of responses is whether individuals are prepared to discuss their situation honestly during interviews. Social desirability bias is common in social research and describes the tendency of respondents to answer survey questions in a way which presents them in a good light with the interviewer. Thus, they may under report socially undesirable behaviour, and over report desirable behaviours, as they see it. In this case, this would entail over reporting compliant behaviour and under reporting non-compliant behaviours. In an attempt to reduce this bias, all respondents were assured of their anonymity at the start of the survey and that identifiable responses would not be passed onto the HSE. However, this may not have been sufficient to assure all respondents, and some could still have been wary that the results would be passed onto the HSE for enforcement purposes.

Whilst this is a problem in interpreting absolute levels of policy/practice or attitudes amongst the SMEs involved in the surveys, it is possible that the problem is no more pronounced amongst the user when compared to the comparator group, or vice versa. Therefore the analysis to determine the impact of WHC (which compares the results of the two groups) could be relatively unaffected by this problem. However, it is also possible that the user group could be more aware of what they 'should' have been doing, and therefore more likely to know the socially desirable answer and select it.

2.10.4 Latency of effects

The WHC pilot was designed to assist employers in going through a period of improvement which in turn would then reduce the incidence of illness and injury, it therefore made no direct impact on its expected final outcomes. It was not, for example, a provider of clinical healthcare where patient recovery times could be monitored and directly related to the treatment regime offered. Impact on final outcomes in health and safety can only be facilitated through intermediate steps. This therefore requires that there is some elapsed time before changes to final outcomes might be expected to emerge.

The evaluation took place over three and a half years and was tasked with determining the impact of the WHC pilot on worker health. Data was collected which allowed the health and safety performance, and absence and accident rates of SMEs to be monitored for one year. Whilst this is a sufficient time-frame to allow some changes to be measured, particularly intermediate outcomes related to improved policies and procedures, it is likely to be insufficient for changes to final outcomes (i.e. absence and accident rates) to emerge.

This problem of effects latency, and balancing the need for a long-term tracking period with real world resource and timing constraints, is a common one, particularly amongst evaluations of health initiatives.

2.10.5 Understanding employer costs

The evaluation was required to estimate the costs and benefits of the WHC pilot as well as considering its operation and impact. To this end users were asked what costs they had incurred in relation to health and safety management since their contact with the WHC pilot in both the impact survey and a separate survey looking solely at costs.

The data on employer costs was compiled solely in relation to the costs which employers using the service attribute to changes they made following their WHC visit. No data on spend during the same period was collected for the comparator group. It is therefore not possible to take an objective assessment of the additional costs incurred by employers using the WHC pilot when compared with costs for the same period amongst the comparator group. This is important in considering the data from the cost-benefit assessment. WHC pilot users may have incurred some of these costs anyway, in complying with their duties under health and safety and employment law. There is also a lack of useful data from other sources which provides a comparable estimate of compliance costs amongst SMEs. In the cost-benefit assessment, all employer costs for the WHC pilot user group and all measured benefits are included in the calculation in an attempt to deal with these difficulties and provide a balanced picture.

In future evaluation activities, however, it would be useful to collect comparative spend data for both the comparator and user groups. In addition, for users, it would be useful to compare their spending on health safety after receiving an intervention with their spending for a similar period prior to the intervention. In this way, a more accurate and detailed analysis of the costs data could be conducted.

2.10.6 Determining the impact on employees

There are limitations to the information held on callers to the adviceline in relation to whether the caller was an employee or an employer. A field was placed in the provider recording system to monitor whether individuals were calling with an individual concern (i.e. they were calling as an employee) or a workforce issue (i.e. calling as a manager or employer). However, advisers experienced difficulties in making this distinction. Reports from adviceline operators suggest that individuals were often unwilling to state that they were calling on behalf of an employer, preferring to categorise themselves as an employee. Complying with these wishes, advisers would record individuals as employees, even when their actual query was about a workforce or workplace issue rather than an individual one. There is, therefore, no accurate data on the status of those calling the adviceline, particularly in terms of whether they were a manager with responsibilities for staff health and welfare, but the likelihood is that the majority of callers were ‘employers’ whatever their recorded status.

This means that it is not possible to determine how well the service met its aims in relation to serving the needs of employees and employers. Evaluation data is therefore focussed on employer use of the service.

2.10.7 The implications of these limitations for the evaluation objectives

Measuring the impact of any initiative, programme or service on bottom line health outcomes, such as rates of sickness absence and work-related health problems, is notoriously difficult. The particular limitations involved in this evaluation (described above) meant that some aspects of the evaluation objectives proved difficult to meet. For example:

- The assessment of the impact of the WHC service on the incidence and duration of occupationally related ill-health and injury is limited by the time frame available for the evaluation, and by the quality of data held by employers. More specifically:
  - Data on health outcomes can be difficult to collect systematically. The WHC service had a number of aims, one of which was to improve aspects of basic health and safety practice such as record keeping. Therefore, changes observed over time could be due

to changes in recording practice rather than changes in health indicators such as absence. This needs to be considered in analysis of impacts.

- □ There may be a long lag between contact with a service or intervention such as WHC and outcomes, so the absence of any observed effects does not equate to the absence of any effect per se.

- ■ It is not possible to determine the impact of the adviceline due to the small number of adviceline users receiving advice.

- ■ The estimated costs to employers of participating in the WHC are likely to include some costs that they might have incurred anyway, in the course of meeting their legal obligations. It is likely that the estimates of employer costs compiled in this evaluation, therefore, over rather then underestimate the scale of costs directly associated with WHC usage.

3 LEVELS OF ENGAGEMENT WITH, AND USE OF, HEALTH AND WELFARE SERVICES AMONGST SMEs

The purpose of this chapter is to inform the reader about the concerns and needs of SMEs in relation to workplace health and well-being. It compares the responses of WHC pilot users of the workplace visit service with those of a comparator group of SMEs operating outside the WHC pathfinder regions (and therefore ineligible for a WHC visit). The results therefore, serve as context/background to the remaining chapters which specifically aim to address the evaluation objectives.

3.1 CHAPTER SUMMARY

- In general, SMEs tend to not view sickness absence (short- or long-term) as a problem in their organisation.
- Most SMEs offer some health and welfare provisions for their staff, most commonly flexible leave and/or working hours, training about specific health issues or changes to the look or feel of the work environment.
- Employers tend to take a relatively narrow view of what constitutes health and welfare provision, driven by a safety focussed view of their responsibilities.
- SMEs almost all offer some form of flexible working or leave arrangements, but do not necessarily link this to a health/welfare agenda.
- Around one-third of employers indicate that they currently pay for some kind of health and welfare provisions/services or external support in this area. Just one in ten employers ask employees to help cover any costs.
- The few employers providing access to some form of occupational health support have generally paid for this provision.
- The WHC user sample was broadly similar in their responses to most questions to SMEs in the non-WHC in terms of their view of sickness absence issues within their organisation, and the number of health and welfare provisions they make to staff. However, there were attitudinal differences, in that WHC pilot users tended to state they found it harder to find the money and advice they needed to improve staff health and welfare, or to know what to do. Unsurprisingly (given their use of the WHC pilot, which is a free service), WHC pilot users were more likely to state that they had been able to address their needs through the use of free services.

3.2 DATA SOURCES AND LIMITATIONS

A specific survey was undertaken to investigate the extent of existing health and welfare provision amongst SMEs, and whether this was in some way different amongst employers electing to use the WHC pilot than other SMEs. The survey involved users of the WHC pilot visit service and a comparator group of non-users (employers based outside the regional pathfinder areas where the visit service was being conducted).

There are a number of limitations of the methodology which affect the type of analysis that can be undertaken, and how the results should be interpreted. These are:

- The non-user sample was selected from a larger sample of non-users constructed as part of the impact evaluation. Thus, these employers were selected to be similar, in terms of their size

and sector to the WHC sample used in the impact survey. The comparator group was not, therefore, drawn specifically for use in this survey of health and welfare provision.

- The comparator group selected for the impact survey was drawn from regions not offering the WHC visit service, rather than all regions in Great Britain. There could, therefore, be regional effects which have not been measured.

As this was a separate survey from that used in the process and impact evaluation, the employers involved are different from those in the baseline and follow-up impact surveys. The survey is based on the responses of 739 WHC visit recipients and 1,030 employers that had not used the WHC pilot (Section 2.6 in Chapter 2 provides a more detailed description of the methodology for this survey). Appendix 5, Table A5.2 provides an overview of the characteristics of employers participating in the survey.

Throughout, independent sample t-tests have been used to determine whether there are any statistically significant differences between WHC pilot users and non-users. Significant results are highlighted in the tables with an asterisk and discussed in the text.

3.3 VIEWS ON SICKNESS ABSENCE, AND DEALING WITH HEALTH AND WELFARE ISSUES

This survey used three indicators of the performance of SMEs in relation to absence. Employers were asked to state, using a five-point scale, the degree to which they agreed with the statements:

1. You have low levels of short-term absence within your organisation (by short-term absence I mean less than 28 days).

2. You have low levels of longer-term absence within your organisation (by longer-term absence I mean 28 days or more).

3. Few people take days off for reasons other than ill-health and holiday in your organisation.

Very few SMEs believed that they had any problems with absence, whether this was short- or long-term or non-health related. There was no significant difference between the WHC user and the non-user groups.

Table 3.1: Perceived absence levels

Aspect of absence	Whether user or comparator group	Proportion agreeing (%)	No. of responses on which proportion based	No. of responses where level of agreement couldn't be given	Total no. of responses to the question
Low levels of short-term absence	Comparison group	93	998	32	1,030
	WHC users	92	699	40	739
Low levels of long-term absence	Comparison group	90	997	33	1,030
	WHC user	88	698	41	739
Few day off sick taken	Comparison group	84	968	62	1,030
	WHC users	85	681	58	739

Source: IES/BMRB Health and Welfare Survey of SMEs, 2008

Employers were also asked to respond to a series of questions on their attitudes towards dealing with health and welfare issues in their organisation[1] by positioning themselves on a five point scale indicating their agreement or disagreement with a number of statements (as presented in Table 3.2).

WHC pilot users, when compared to SMEs in non-WHC pathfinder areas, were significantly more likely to agree that:

- their organisation has been able to address its health and welfare requirements through free services (85 per cent compared to 64 per cent of non-users)
- it can be difficult to find the money needed for health and welfare services (73 per cent versus 64 per cent of non-users)
- it can be difficult to work out where to go to get advice on these issues (54 per cent versus 36 per cent of non-users)
- they are not always sure what is needed to improve/look after staff health and welfare (58 per cent versus 45 per cent of non-users).

Overall, therefore, WHC pilot users, when compared to SMEs in non-WHC areas, appear to have found it harder to deal with health and welfare issues in the past for various reasons, including not knowing where to go to get advice, a lack of clarity about what to do, and a lack of money to spend on these issues. The fact that this group is more likely to feel that they have been able to use free services to address their needs is likely to reflect their experiences of using the free WHC pilot service. It is worth noting that there is a higher proportion of new businesses (i.e. organisations established within the last two years) in the WHC user sample. Therefore, their difficulties could reflect a less well-developed health and safety system in general, or difficulties in establishing one in the early stages of business development.

A recent survey of 4,000 small businesses[2] found similar results. This showed that:

- 43 per cent had not experienced any sickness absence in the previous 12 months
- where absence had occurred, in more than 75 per cent of cases this was due to minor illnesses (e.g. colds, flu)
- less than half of respondents formally monitor sickness absence, and only 6.5 per cent provide access to occupational health support
- where long-term absence had occurred, its effects were more likely to be perceived as 'major'. The main impacts on the business relate to finding staff cover and paying sickness absence.

---

1 *Factor analysis showed that, statistically, each question captured something different.*

2 *Federation of Small Business (2006)* Health Matters: the small business perspective. *www.fsb.org.uk/documentstore/filedetails.asp?ID=367 (accessed 12 August 2009).*

Table 3.2: Employer attitudes towards health and welfare provision

Attitude statement	User/ comparator group	Proportion agreeing %	No. of responses on which proportion based	No. of responses where level of agreement couldn't be given	Total no. of responses to the question
It is not up to employers to help workers look after their own health	Comparison group	23	938	92	1,030
	WHC users	22	682	57	739
Workload and other pressures makes it difficult for your organisation to deal with health and welfare issues	Comparison group	46	957	73	1,030
	WHC users	57	696	43	739
Your organisation has been able to address its health and welfare requirements through free services *	Comparison group	64	894	136	1,030
	WHC users	85	686	53	739
It can be difficult to find the money needed for health and welfare services given other priorities *	Comparison group	64	936	94	1,030
	WHC users	73	691	48	739
It can be difficult to work out where to go to get advice about how to look after or improve the health or welfare of staff *	Comparison group	36	958	72	1,030
	WHC users	54	704	35	739
Your organisation isn't always sure what it needs to do to look after or improve the health and welfare of staff **	Comparison group	45	955	75	1,030
	WHC users	58	699	40	739

All statements were tested using an independent samples t-test to determine whether a statistically significant difference was detected between the user and comparator groups. Where a significant difference was detected, this is marked (* indicates p<.01 and ** indicates ** p<.05).

Source: IES/BMRB Health and Welfare Survey of SMEs, 2008

3.3.1 Conclusions

SMEs generally do not see themselves as having a problem with sickness absence. The WHC pilot's target audience are therefore likely to be a 'tough sell' on health and sickness absence. They are likely to be unmotivated by messages that have traditionally been used to engage larger employers with occupational health issues such as reducing the costs to business associated with worker ill-health. The costs of providing health and welfare provision are a concern to these businesses and they are not always sure where to go to get advice. WHC pilot users appear to have experienced more problems and be more concerned about worker health and welfare than non-users.

3.4 TYPES OF HEALTH AND WELFARE PROVISIONS OFFERED BY SMEs

Further data is available relating to the types of services that WHC pilot users and SMEs in non-WHC areas provide to their staff. Two questions were used to determine the services used by SMEs in meeting the health and welfare needs of their staff.

A very broad initial question asked 'What does your company do, if anything, to look after the health and welfare of its staff?', to gauge unprompted views. The vast majority of employers (83 per cent of SMEs in non-WHC areas and 84 per cent of the WHC pilot user group) were able to specify at least one service or facility that they offered to staff (Table 3.3). On average, employers provided examples of between one and two different provisions when unprompted (mean = 1.4 services amongst SMEs in non-WHC areas and 1.6 amongst WHC users).

Employers were then asked specifically about a range of health and welfare services, and in each case they were asked whether they had offered it to staff or used it in the previous 12 months. Just three per cent of SMEs in non-WHC areas and two per cent of WHC pilot users, when prompted in this way, still felt that they offered no health or welfare services to staff. This suggests that some employers may take a narrow view of what constitutes health and welfare provision (as demonstrated by the fact that 16 per cent of WHC users do not believe they offer anything until given specific prompts), and may not automatically appreciate the potential positive effects of some of the facilities that they are already providing. WHC pilot users offered a slightly higher average number of services to their staff then SMEs in non-WHC areas (6.5 compared to 5.6), although this result was not statistically significant.

Table 3.3: Provision of health and welfare service to staff

	Comparator group		WHC sample	
	Unprompted response %	**Prompted response %**	**Unprompted response %**	**Prompted response %**
At least one service provided	83	97	84	98
No service provided/unable to answer	17	3	16	2
Number of responses on which percentage based (N)	*1,030*	*1,030*	*739*	*739*

Note: Unprompted question was: 'What does your company do, if anything, to look after the health and welfare of its staff?'. Prompted question was: 'Which of the following has your organisation used or offered to staff in the last 12 months?', followed by a randomised list of 20 different items (a positive answer to any of these items is allocated.

Source: IES/BMRB Health and Welfare Survey of SMEs, 2008

Employers provided a wide range of different activities that they felt were related to health and welfare, including: listening to staff; offering health insurance; providing training; and many other facilities (a full breakdown is provided for both the non-user and user groups in Appendix 1, Table A1.1). Overall, the responses of SMEs in non-WHC pilot areas and users were broadly similar, and they both gave the same top six responses (Table 3.4). The most common provision given by employers was that they had health and safety policies in place; followed by the fact that they listen to the concerns of staff; conduct risk assessments; offer training on health and safety; and offer a safe working environment. SMEs therefore tend to focus on safety-related aspects of their treatment of staff rather than more health- or welfare-focussed activities. There were no statistically significant differences between the WHC pilot user and comparator groups in terms of their responses.

Table 3.4: Top six unprompted examples of health and welfare provision amongst SMEs

	SMEs in non-WHC areas %	WHC sample %
Health and safety policy schemes/guidelines in place	22	23
Look after our staff/listen to concerns/Offer support	15	17
Risk assessments	13	14
Training on health and safety issues	10	12
Provide a safe/good working environment	9	11
Provide health schemes/health cover/health insurance	11	10
Number of responses on which percentage based (N)	*859*	*622*
Number of respondents indicating they didn't know/couldn't answer/provide nothing (N)	*171*	*117*
Total number of employers asked this question (N)	*1,030*	*739*

Note: This was a multiple response question and employers could indicate as many of the services facilities listed as they felt was appropriate.

Source: IES/BMRB Health and Welfare Survey of SMEs, 2008

In order to overcome this focus on safety, the survey included prompted questions asking employers specifically about a range of different facilities/services that are considered to be related to staff health and welfare, thereby offering a broader view of SME practice. Using these questions, a different pattern emerges (Table 3.5), reflecting a broader range of activity amongst SMEs. The most common provisions amongst SMEs, using this measure, are flexible leave and/or working arrangements; training about specific health conditions; changes to the look/feel of the work environment; and some form of team-building initiative. Smaller employers do, therefore, seem to be offering lower cost provisions, such as offering flexible working, in relatively large numbers. What seems to be less common is for these employers to offer services or facilities that require some external input or which require significant funding. However, there is a large proportion of employers who declare they are addressing specific health conditions through training and assessment.

Table 3.5: Health and welfare provision offered by SMEs (in response to prompted questions)

Health/welfare provision	Comparator group %	WHC sample %
Flexible leave arrangements	79	78
Flexible working arrangements	77	80
Training about specific health issues	77	80
Changes to the look or feel of the work environment, e.g. redecoration	64	66
Team building initiatives	52	57
Private medical insurance*	34	21
Help stopping smoking*	32	26
Staff surveys	31	36
Health questionnaires	29	30
Employee assistance programmes	26	27
Health checks	21	24
Healthy eating initiatives	19	19
Stress management programmes or assistance*	17	24
Ergonomists	10	16
Occupational health doctors and nurses	14	13
Informal support from a local NHS provider or GP	13	11
Counsellors	13	16
Childcare vouchers or a crèche	11	14
Physiotherapists	10	9
Sports or exercise facilities*	10	14
Number of responses on which percentage based (N)	*1,007*	*726*
Number of respondents indicating that they offer no services (N)	*23*	*12*
Total number of employers asked this question (N)	*1,030*	*739*

* t-test * p<.05

Note: This was a multiple response question and employers could indicate as many of the services facilities listed as they felt was appropriate.

Source: IES/BMRB Health and Welfare Survey of SMEs, 2008

The profile of provision amongst WHC pilot users is broadly similar to that amongst SMEs in the non-WHC areas. There were, however, statistically significant differences on four items: WHC pilot users were more likely to offer stress management facilities and sports or exercise facilities, whilst the comparator group were more likely to offer health insurance and help with stopping smoking.

3.4.1 Conclusions

Most SMEs are at least offering some basic provisions for their staff related to health and welfare at work. However, these employers tend to take a relatively narrow view of what constitutes health and welfare provision, mainly driven by a very 'safety focussed' view of

their responsibilities. When not prompted to think more broadly, employers tend to focus on provisions such as health and safety policies and risk assessment when talking about what they do to protect the health of staff. SMEs almost universally offer some form of flexible working, for example, but generally do not see this as related to staff health and welfare until prompted.

3.5 WHAT SERVICES SMEs PAY FOR

A further consideration is the extent to which employers pay for health and welfare services/facilities (Table 3.6). Significantly, more of the comparator group (41 per cent compared to 33 per cent of WHC users) had paid for some of the service they offered staff in the last year. Very few, only ten per cent of users and 11 per cent of the comparator group providing at least one service, had asked for any help from their employees to cover the costs of services/provisions (Table 3.7).

Table 3.6: Proportion of employers paying for or using external support in offering health/welfare services/facilities

	Employer pays*	
	Comparator group %	**WHC sample %**
Services provided and paid for	41	33
Services provided but not paid for	56	65
No services provided	2	1
Number of responses on which percentage based (N)	*1,019*	*730*
Number of respondents indicating they didn't know (N)	*11*	*9*
Total number of employers asked this question (N)	*1,030*	*739*

* t-test, p<.01

Source: IES/BMRB Health and Welfare Survey of SMEs, 2008

Table 3.7: Proportion of employers that ask employees to make a contribution towards the costs of health/welfare services/facilities

	Employee makes contribution	
	Comparator group %	**WHC sample %**
Employees contributed to cost of services	11	10
Employees did not contribute to cost of services	89	90
Number of responses on which percentage based (N)	*995*	*721*
Number of employers indicating that they didn't know (N)	*35*	*18*
Total number of employers asked this question (N)	*1,030*	*739*

Source: IES/BMRB Health and Welfare Survey of SMEs, 2008

The services that employers most commonly paid for (defined by the proportion of those providing each service that had paid for it, or for external support in providing it) were not the most commonly offered services, as demonstrated in Table 3.8. The services that the highest proportion of users paid for were:

- occupational health doctors and nurses
- private medical insurance
- health checks
- physiotherapists.

Table 3.8: Services/facilities employers paid for (as proportion of employers providing each facility)

	SMEs in non-WHC areas		WHC sample	
	Number offering the facility	**% of these that had paid for it**	**Number offering the facility**	**% of these that had paid for it**
Occupational health doctors and nurses	145	57	96	50
Private medical insurance	345	53	154	45
Health checks	216	48	178	40
Physiotherapists	100	48	68	41
Counsellors	130	40	115	31
Training about specific health issues	775	32	579	24
Childcare vouchers or a crèche	110	27	102	21
Informal support from a local NHS provider or GP	136	29	82	21
Stress management programmes or assistance	167	25	173	19
Ergonomics	141	29	118	18
Changes to the look or feel of the work environment (e.g. redecoration)	652	26	482	23
Sports or exercise facilities	100	24	102	22
Team building initiatives	521	23	413	15
Health questionnaires	292	19	218	13
Employee assistance programmes	263	14	196	14
Staff surveys	311	11	263	9
Help stopping smoking	321	10	187	10
Healthy eating initiatives	196	10	140	10
Flexible working arrangements	780	3	578	3
Flexible leave arrangements	795	3	569	5

Source: IES/BMRB Health and Welfare Survey of SMEs, 2008

3.5.1 Conclusions

A sizeable minority of SMEs have paid for services related to workplace health, and in some cases employers do pay for multiple services. Very few employers ask their employees for help in covering the costs of any provisions. Whilst the services of occupational health professionals are not the most common provisions amongst SMEs, they are the ones which the highest proportion of employers offering these provisions are required (or willing) to pay for.

4 PROCESS EVALUATION OF THE PILOT: TAKE UP AND USER EXPERIENCES

This chapter presents the results of the evaluation of the process of delivering the WHC pilot. As such it addresses the following aspects of the evaluation objectives in that it:

- examines the operation of the WHC pilot's adviceline and visit service
- looks at lessons for improving quality, effectiveness, efficiency and sustainability of these services
- determines triggers for use of the WHC pilot
- estimates user satisfaction with the WHC pilot.

4.1 CHAPTER SUMMARY

- Take-up of the adviceline was lower than anticipated (although no actual targets were set as such for this element of the service) with 14,841 calls taken in total during the two years of operation. Only 18 per cent of calls involved in-depth advice. The advice delivered was mostly concerned with traditional health and safety, rather than occupational health issues.
- Central telemarketing was a successful approach to drive up user numbers, although users from this source were least likely to have in-depth advice. Users coming into the service via telemarketing had lower levels of existing health and safety practice than those entering via other routes. The costs of central marketing was around 18 per cent of the total costs of running the pilot[1] and an average of £516 (in 2008-09 prices) per employer receiving a workplace visit[2].
- Online search activity was another important component of the marketing strategy, and attracted clients from outside the pathfinder regions, who were more likely to take up the offer of telephone advice.
- Adviceline users were generally satisfied with the advice they received, and clients described the service as fast, efficient, practical and professional, providing useful recommendations.
- The WHC pilot exceeded its workplace visit targets delivering 5,413 initial visits, and 77 per cent of organisations went on to receive a follow-up visit. These organisations employed approximately 124,000 workers. Most employers wanted to use the service to access relatively basic advice on traditional health and safety issues.
- Users of the visit service can be characterised as being at one of three levels, needing:
  - support with specific problem-solving where an issue, over and above generic concerns, had been identified

[1] *These costs do not include the cost of the evaluation of the pilot; the total cost of the pilot including evaluation was £16,638,380*

[2] *Costs of provision include some VAT. It is conventional in social cost benefit analysis to exclude transfers payments such as VAT. However as the exact level of VAT was not identified for this evaluation, this results in the total cost of provision being greater than it would be with all VAT excluded*

- help in the validation and checking of existing systems/policies/documents to ensure that they meet legal obligations or good practice standards
- help initiating health and safety systems 'from scratch' where nothing exists or procedures have been neglected.

- Employers were generally very satisfied with the workplace visit service and felt the advice offered was practical and tailored to their needs. Advisers were seen as professional and knowledgeable.
- The referral service aspect of WHC was used in only four per cent of cases. Referrals which did occur were mainly onto further health and safety training, rather than specialist medical support with occupational health issues.

4.2 MARKETING OF THE WHC PILOT

4.2.1 Marketing approaches used

One of the major challenges for the WHC pilot was to engage with small and medium sized organisations. Testing out different marketing strategies was therefore an important part of the service design and an important part of the pilot. There were two main ways in which the pilot was marketed:

- A centralised marketing strategy responsible for generating interest in both the adviceline and visit service.
- Regional efforts, or outreach activities, conducted by each of the five service providers (known as pathfinders) according to their own, regional marketing plan.

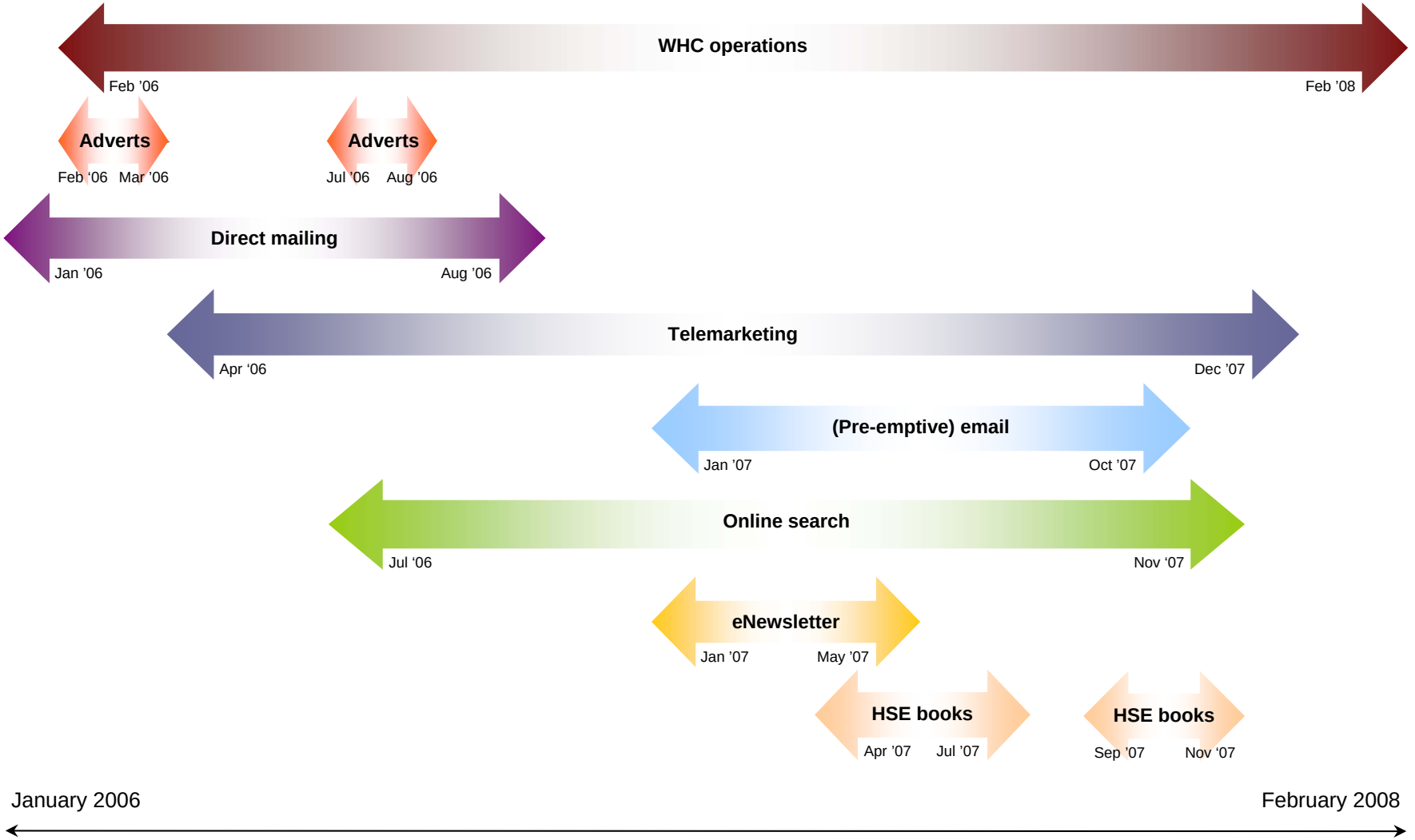
Central marketing

The HSE employed the services of the Central Office of Information (COI) who in turn commissioned marketing activities (e.g. Public Relations, telemarketing) from contracted agencies. Therefore, while the HSE managed the marketing, COI was responsible for its delivery. The HSE also commissioned a marketing consultant to help them develop a brand and a marketing strategy for the service. A public relations stream was also in place during the early months of service operation. This managed the messages emerging in the press about the service and placed articles in a number of key publications, including business press, trade press and other printed media. A timeline of the different central marketing approaches is presented in Figure 4.1.

As the service progressed, a range of direct approaches were made to employers, including:

- Use of outbound telemarketing (OBTM), utilising a professional telemarketing company (this was, for some, accompanied by a pre-emptive email approach to the company).
- Use of direct mailing (e.g. through posting out information to companies, or the use of emailed newsletters).
- Pay per click Internet activity (i.e. sponsored Internet searches) using mainly Google, also MSN and Yahoo search engines.
- The mailing of a letter and booklet to the database of SMEs who had used HSE Books (8,000 letters) or made other orders from the HSE.

Figure 4.1: Timeline of marketing activities



There were some specific findings from the early stages of the marketing development which should be noted for any future programmes. Firstly, messages promoting the service based on how well it could reduce the impact of sickness absence on SMEs were not well received, and lacked resonance for this group. More generic messages about health and safety worked better in terms of generating user numbers. Secondly, branding the service as a partnership initiative with the HSE was successful, adding credibility to the offer. Where employers had concerns about links with the HSE, WHC pilot advisers were effective in dealing with these. In addition, telemarketing was most effective when conducted by professional sales people (rather than occupational health specialists), but they are likely to need instruction on the appropriate level of 'sales' to use in relation to a free government service (i.e. a 'hard' sell is not appropriate or desirable).

The adviceline was almost totally reliant[1] on the efforts of central marketing to generate interest in its service, whereas the five regional providers made their own efforts to engage with local employers. However, the central marketing budget was focussed on promoting the visit service, and using the adviceline as a portal to access visits, and there was little national or specific advertising undertaken to promote the adviceline service in its own right. Disentangling the effects of the marketing efforts for different elements from the scale of demand for them is therefore difficult.

Provider marketing (outreach)

The marketing strategies used by pathfinders to generate regional interest in the WHC service varied widely, but included a mix of mailings, telesales (where calls are made by advisers or other project staff, rather than through the central marketing approaches), and other outreach activities. Additional activities included running specific events for local businesses (e.g. masterclasses, seminars), advertising at high profile local events, or using other local advertising (e.g. on taxis, bus tickets). The use of intermediary organisations (e.g. Education Business Link, local training providers carrying out health and safety checks for local employers, Regional Development Agencies, Business Links) was also a common way of raising the service profile.

4.2.2 How employers heard about the service

The relative importance of different marketing approaches in informing employers about the WHC pilot varied according to whether employers' first contact was with the adviceline or pathfinders (Table 4.1). There were only two main routes into the adviceline, through telemarketing (45 per cent of users) or through online search activity (17 per cent of users). Regional pathfinders used a wider variety of methods to generate interest in the service and consequently there were four main routes direct to pathfinders: through word of mouth (23 per cent of those entering through this route), mail-shot/leaflet (22 per cent), and regionally operated telemarketing (ten per cent) and through other agency referrals (ten per cent).

Telemarketing was therefore successful in generating large numbers of callers to the adviceline, but only a small number of employers coming to the adviceline through this route (seven per cent) received some form of advice over the telephone. Most eligible (and willing) employers preferred to wait until their initial visit from an adviser to receive advice, despite being offered additional advice over the telephone at that point. This may be because, at the

---

[1] *In the final months of the service, advisers were able to make their own approaches to employers during any service 'downtime'; but prior to this they were restricted from doing so.*

time of the cold call, they had no specific issues to discuss or because they simply preferred face-to-face contact to telephone contact with an adviser. It is worth noting, however, that a large number of callers put through to the adviceline and offered a visit did not take one up (these callers are likely to make up a large proportion of the 4,909 calls to the adviceline recorded as 'other' than a call involving advice, information or referral to the visit).

Whilst central telemarketing generated the greatest proportion of adviceline calls, there was a greater proportion of callers requesting 'advice' originating from Internet-led enquirers (29 per cent of callers receiving advice found out about the WHC pilot from the Internet). This could be because more of these callers were not eligible for the visit service, or because they had a more specific need for advice at that point in time, hence, their proactive search for assistance.

Table 4.1: How WHC pilot users heard about the service

How employer heard about the WHC pilot	All users %	Adviceline callers %	Entrants via p/finders %
Telemarketing	39.4	44.7	10.4
Unspecified website	14.6	17.2	0.0
Mail-shot/leaflet	8.4	5.9	22.3
WHC website	4.9	5.8	0.0
HSE website	3.6	4.3	0.0
HSE/LA inspector or other representative	3.6	4.1	0.5
Word of mouth	6.8	3.8	23.2
Referral	3.5	2.2	10.7
HSE Infoline	1.3	1.5	0.1
WHC Adviser	2.2	1.4	6.7
Specialist publication	0.9	1.0	0.0
National newspapers (e-newsletter from April 2007)*	0.6	0.7	0.0
Local event	0.7	0.5	2.0
Radio/TV advertising (email from March 2007)*	0.4	0.4	0.0
Local newspapers	0.2	0.3	0.0
Poster	0.0	0.0	0.0
Other	8.7	6.0	23.8
Number of records on which percentage based (N)	*17,387*	*14,702*	*2,685*
Number of missing records (N)	*139*	*139*	*0*
Total number of records (N)	*17,526*	*14,841*	*2,685*

Note: 2,443 cases in the CMS had missing information on adviceline call category was missing.

* Definition of response codes in the CMS was changed to incorporate new types of marketing.

Source: IES analysis of WHC CMS Data, June 2008

Table 4.2 shows how contact methods varied by sector. A greater proportion of employers in the retail and commercial services sector were contacted through telemarketing than those in other sectors. A greater proportion of employers offering public services made a proactive approach to the service.

Employers contacted through telemarketing generally have lower levels of health and safety measures as recorded in the initial survey (Table 4.3). They are statistically significantly less likely than employers contacting the service pro-actively to:

- provide training on health and safety to their employees
- have formal procedures to investigate the causes of work-related illness
- involve their employees in health and safety
- undertake risk assessment by a trained member of staff
- have guidelines to help workers return to work after long-term sickness absence.

In summary, therefore, telemarketing led to different types of employers than were generated from other routes, both in terms of sector, and their health and safety activities.

Table 4.2: Route into the WHC pilot by sectoral group

	Proactive approach %	Telemarketing %	Total %
Manufacturing/other primary activities	24	24	24
Retail and commercial services	41	60	51
Public services	35	16	24
Number of records on which percentage based (N)	*249*	*293*	*542*

Note: Data on route into the service is from the management information collected by WHC providers; the data on sectoral group is from the baseline user survey.

Chi-square 29.197 df=2 $p<0.01$

Source: IES analysis of WHC management information and IES/BMRB survey of WHC visit service users, 2006/2007

4.2.3 Costs of marketing efforts

The total cost of the central marketing campaign was £2.8m in 2008-09 prices[1]. This equates to an average marketing spend of £516 (in 2008-09 prices) per employer receiving a workplace visit. Central marketing made up around 18 per cent of the total investment in the WHC pilot. Comparable data was not available for the regional outreach efforts as this was subsumed within the operating costs of the workplace visit service within each region.

[1] *Costs of provision include some VAT. It is conventional in social cost benefit analysis to exclude transfers payments such as VAT. However as the exact level of VAT was not identified for this evaluation, this results in the total cost of provision being greater than it would be with all VAT excluded*

In addition to these figures on overall central marketing spend, data on both the costs of, and employer response to, three main central marketing approaches were available, namely: telemarketing; online search activity (including employers coming into the WHC pilot through the HSE and WHC websites); and direct postal mailings. It was not possible from the data available to assess the relative cost-effectiveness of combinations of activities, so these figures only provide a guide to the relative costs of these different techniques. In addition, these costs do not take account of the expenses involved in branding the service and developing and managing the marketing strategy. Specific data from pathfinders detailing the costs of different types of local marketing was not available.

Telemarketing was the most cost-effective of the three techniques. The cost of one employer contacted and relayed to the adviceline via this route was half that for direct mail and only two-thirds the cost for online searches. These differences were due to a lower proportion of those contacted via the latter methods resulting in adviceline use, whereas all/most of those contacted by telemarketing were recorded as adviceline users. Telemarketing was also relatively cost-effective in terms of generating workplace visits, costing a fifth of the cost for an online search and only about a tenth of the price for direct mail activities, to generate a workplace visit.

It should be noted that there are potentially greater advantages in using Internet advertising for a national service than are apparent from the data on this regionally based pilot. Internet advertising for a regional service requires that those in regions where the service (here the visits) is not available are effectively 'wasted' effort, as they could not use the service even when they find out about it and want to take part. Advertising a service available nationally means, therefore, that within those seeing the advertisement, a higher proportion of potential users are present.

Table 4.3: Baseline health and safety activities by route into the service (visit recipients only)

	Proactive approach %	Telemarketing %	Total %
Formal centralised system to keep absence records	57	58	58
Formal centralised system to keep record of accidents	76	75	76
Whether keep records of illness, disability or health problems caused/made worse by work	40	35	37
Whether training in health and safety provided or paid for by employer*	52	43	47
Risk assessment regularly undertaken*	62	52	57
Whether there is a formal procedure to find out the causes of a work-related illness, disability or a problem*	36	23	29
Whether there is a formal procedure for ensuring that workers are involved in health and safety*	44	31	37
Whether person who undertake risk assessment had a formal training	45	39	42
Whether person who undertake risk assessment had health and safety qualification	29	26	28
Whether there is a clear guidance to help workers return to work following a long-term sickness absence*	31	18	24

Number of records on which percentage based (N)	*464*	*530*	*994*

* Indicates a significant difference detected between employers from the different groups, using chi-square at $p<0.05$.

Source: IES analysis of WHC management information and IES/BMRB survey of WHC visit service users, 2006/2007 (includes all users participating in the initial impact survey)

4.2.4 Impacts on provision

Staff involved in delivering the visit service highlighted some implications of these marketing approaches on their service delivery (during interviews with the evaluation team conducted throughout the life of the pilot).

Advisers perceived lower levels of engagement amongst employers who had come into the service via the adviceline, when compared to those coming through regional efforts or pro-active approaches to the service. Analysis of provider data suggests that employers referred to a pathfinder through a telemarketing-generated adviceline call were actually no more likely to cancel a visit than other employers. There is some evidence, however, that referrals obtained through central telemarketing were less likely to lead to a visit taking place; that the initial visit was likely to be shorter, and less likely to result in a follow-up visit.

Providers experienced difficulties in managing the fluctuating volume of referrals from central telemarketing. This could vary across regions during any one month, and there were limits to the responsiveness of the telemarketing agency in terms of reducing or increasing referrals to coincide with regional needs (e.g. staffing levels, visit backlogs). Some regions used local telemarketing, and this was felt to have more flexibility to local needs. Local telemarketing was felt by providers to be most successful when undertaken by staff with a specific expertise in telemarketing than specialist knowledge regarding health and safety.

4.2.5 Conclusions

Marketing efforts which relied on a proactive 'pick up' from SMEs (e.g. direct mailings) were less successful in generating large numbers than more direct approaches such as telemarketing. Any occupational health service for SMEs is therefore unlikely to find a huge untapped demand for its services amongst the general business population. This is likely to relate to the general lack of interest in, and experiences of, sickness absence at an individual company level (discussed in more detail in Chapter 3). However, there were examples of employers actively seeking support with workplace health and/or safety issues, and these employers tended to find the service through online search efforts.

Data indicates that users coming into the service via telemarketing have lower levels of health and safety performance than those approaching the service proactively. Therefore, telemarketing is potentially a useful way to generate interest in the service from harder to reach employers who may have the greatest need. However, whilst more cost effective, those generated by telemarketing were less likely to get any advice through the adviceline and (as noted in Section 4.2.4) tended to have shorter site visits with less chance of a follow-up visit. Telemarketing is therefore effective in generating users but services tend to be used less intensively by employers coming through this marketing route. A challenge for any future service provision is, if telemarketing is to be utilised to generate numbers, how these employers and contacts can be encouraged to more actively engage with the service and health and safety issues more generally.

Whilst central telemarketing was important in driving up numbers, local provisions also made a major contribution. Service providers with knowledge about their region will be equipped to determine the best approach for them, but a combination of approaches appears to work best, reflecting the very different types of organisations included in the SME community.

Overall, therefore, a relatively small proportion of employers, at any one point in time, will have a specific interest or concern regarding workplace health with which they are actively seeking support. Most employers will need messages to be taken directly to them to stimulate interest in an occupational health service.

4.3 ADVICELINE

4.3.1 Take up

In total, there were 14,841 calls to the adviceline. In the majority of cases, information was recorded on the employer's industrial sector and size, and these details are shown in Table 4.4. The Table distinguishes between all recorded callers (which includes those receiving advice) and just those receiving advice. The profiles are broadly similar.

The figures in Table 4.4 can be compared with population estimates, and this shows that the service was proportionately more successful at attracting employers offering public services or engaged in manufacturing/other primary activities than employers from the retail and commercial services sector.[1] It is not clear, however, whether this sectoral imbalance is due to differences in the way that marketing for the service was targeted, or a greater attraction of the service to employers in some sectors. Table 4.2 (presented earlier) suggests that those in retail and commercial services were less attracted to the service and that telemarketing went part, but not all, of the way to reducing this imbalance.

Almost all recorded callers (94 per cent) were SMEs (as were 88 per cent of those receiving advice) and around 70 per cent of both groups had no existing access to occupational health support. Additional information from the employer survey demonstrates that 66 per cent of callers responding to the impact survey were single site operations, and 15 per cent had been in operation for less than two years.

Table 4.4: Adviceline user characteristics (based on provider records)

Employer characteristic	All recorded callers %	Callers receiving advice %
Industrial sector		
Manufacturing/other primary activities	24.6	28.0
Retail and commercial services	50.7	46.2
Public services	24.2	25.5
Other	0.5	0.3
Number of records on which percentage based (N)	*8,512*	*2,694*

[1] *Taken from Nomis June 2006, just after the WHC service began operation. The relevant estimates from NOMIS are: Primary Services Sector 15 per cent; Secondary Services Sector 58 per cent; and Public Services 27 per cent. It should be noted that these estimates are for employers with between 5 and 299 employees only.*

Employer characteristic	All recorded callers %	Callers receiving advice %
Number of missing records (N)	*6,329*	*11*
Total number of records (N)	*14,841*	*2,705*
No. of employees at work site of caller		
1–9 employees	38.9	38.9
10–49 employees	41.9	36.4
50–249 employees	14.0	18.0
250+ employees	5.1	6.7
Number of records on which percentage based (N)	*8,108*	*2,686*
Number of missing records (N)	*6,733*	*19*
Total number of records (N)	*14,841*	*2,705*
No. of employees in whole organisation		
1–9 employees	35.5	35.2
10–49 employees	39.5	33.6
50–249 employees	16.7	19.6
250+ employees	8.3	11.5
Number of records on which percentage based (N)	*8,062*	*2,672*
Number of missing records (N)	*6,779*	*33*
Total number of records (N)	*14,841*	*2,705*
Access to occupational health support		
Yes, have access	22.2	20.5
Do not have access	71.8	67.3
Don't know	6.0	12.3
Number of records on which percentage based (N)	4,583	2,193
Number of missing records (N)	10,258	512
Total number of records (N)	14,841	2,705

Note: The adviceline was available to employers of all sizes.

Source: Analysis of WHC CMS data, June 2008

4.3.2 How the service was used

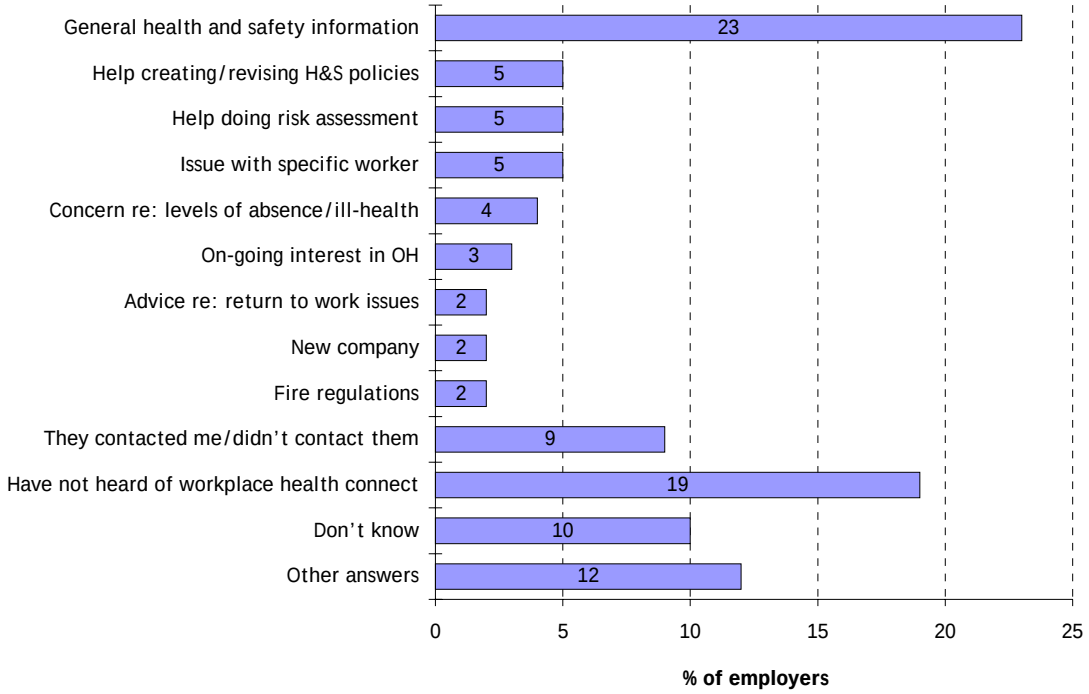
Throughout this section and the remainder of Section 4.3, the data from the Impact Survey and the CMS relates to those users of the WHC pilot who only used the adviceline and did not go on to receive a workplace visit.

Only a relatively small proportion of users (18 per cent) received 'advice' from the service; the remainder using it only as a visit referral service, to get relatively simple information, or as a result of a failed telemarketing call. Users receiving advice therefore represent a very different group, potentially, than other users. This is because they are likely to be ineligible for a visit either as they are out of pilot area or because of their size, and are therefore likely

to have found the WHC pilot proactively rather than via telemarketing (29 per cent of adviceline users coming into the service via websites received advice compared to just seven per cent of those receiving a telemarketing call).

The main reason given by employers in the survey for contacting the adviceline[1] is that they required general information about health and safety (Figure 4.2). Concerns about absence levels or return-to-work issues motivated only a small proportion of employers.

Figure 4.2: Main reason given for contacting the adviceline



Base for this table is all adviceline users responding to baseline survey (N=309).

Source: IES/BMRB baseline survey of adviceline users, 2006/2007

Provider records provide two sources of information about the advice they provided to employers: the issue with which employers requested help (presented in Table 4.5) and the nature of the advice they provided (presented in Table 4.6). Enquiries were mostly about general safety issues or conducting risk assessments (these two categories account of 59 per cent of callers). In line with the nature of the enquiries received, advisers were most likely to provide advice on hazard identification and risk assessment. In only a small number of cases were advisers called upon to provide advice on absence management, return-to-work and health issues. The way in which any future service is staffed should therefore be given serious consideration. Highly qualified advisers were under utilised, dealing with administrative handovers to the local services as much as requests for advice.

Adviceline staff were highly effective in handling callers coming into the service via telemarketing and referring them onto their relevant local service. The marketing of the

---

[1] *Many adviceline users, particularly those from the pathfinder regions, had been targeted by telemarketing, and therefore had no specific reason for getting involved with the service, or (in 19 per cent of cases) could not recall their contact with the service.*

WHC pilot therefore generated a high enough throughput of potential clients into the service, and all leads were followed up rigorously throughout the process, to allow service targets for the workplace visit service to be met (see Section 4.4 for further details). The administrative systems of the service therefore operated successfully.

Table 4.5: Requests made to the adviceline (calls involving advice only)

Enquiry category	%
Advice on general safety issue	46.0
Advice about conducting risk assessments	13.3
Advice about a specific risk/hazard	12.7
Information about legislation and general employer duties	6.6
Reaction to case/s of ill-health at work	6.0
Advice on general health issue	5.0
Advice on work-related health issue	4.3
Information about how to comply with specific legislation	1.6
Other	4.4
Number of records on which percentage based (N)	*2,696*
Number of missing records (N)	*9*
Total number of records (N)	*2,705*

Note: Enquiry category was only mandatory for adviceline calls categorised as 'advice'. There were nine cases where this information was missing.

Source: Analysis of WHC CMS data, June 2008

Table 4.6: Nature of advice given (calls involving advice only)

Advice given	%
Hazard identification and risk assessment	38.1
Return to work	8.2
Workplace regulations	6.0
Hazardous materials	3.8
Sickness absence	3.2
Musculoskeletal disorders	3.0
Pregnant workers	2.3
Stress	2.1
Management regulations	1.9
Asbestos	1.1
Falls from height	1.0
Other*	29.1
Number of records on which percentage based (N)	*2,696*
Number of missing records (N)	*9*

Total number of records (N)	*2,705*

Notes: * The large 'other' category in the table comprises a number of additional responses each with less than one per cent of cases, and a response category of 'other' comprising 23.7 per cent of cases.

Source: IES analysis of WHC CMS data, June 2008

Telephone interviews with adviceline users who had used the service to receive advice suggests that they fell into three main groups (or a combination of these), with needs related to:

- seeking advice on a specific issue

  'When I saw this I thought I would ring and I would see. I've got to say, the first interaction we had I had a specific question ... it was answered very, very thoroughly and I was very impressed.'

  (Garage owner, small automobile maintenance garage)

- checking the existing system/policy or practice is up-to-date or that the actions they are already taking are appropriate

  'I discussed my work plans in terms of work practice and health and safety with the adviser to be sure I was being sensible and not breaking any regulations. Discussed it point by point and felt happy to continue.'

  (Self-employed builder)

- developing new policies or systems

  'We were given a broad overview about our statutory obligations for our employees, about notifying them about health and safety policies, making sure they were aware of health and safety policies. Then there was specific information regarding our pregnant employee. In each case we were referred to the HSE website for where to go to find the guidance notes, forms, posters and all those things, where we needed to go to download them off the web to give them the information that we needed.'

  (Manager, legal services, six employees)

In addition, specific prompts, either internal (e.g. office moves, expansion or the issues facing a specific worker) or external (e.g. requests from insurance companies or clients), could prompt a call to the adviceline.

4.3.3 Satisfaction with the service

The employer survey showed very high levels of satisfaction amongst WHC pilot users; 67 per cent of those only using the adviceline, and 80 per cent of those who also went on to receive a visit stated that they were very satisfied with the service that they received from the adviceline. Almost 70 per cent of callers stated in the survey that they felt the recommendations they had received from the adviceline were very useful. These findings are encouraging, especially since visit service users in particular are likely to have had only limited contact with the adviceline. Despite this, only 15 per cent of adviceline users stated in the survey that they would have liked something additional to that received. Users appreciated the fact that WHC was a free service.

The telephone interviews with users provide some examples of how the service was viewed.

'I thought that the advice line was very, very useful. I thought the person on the end of the phone was very approachable and everything was treated confidentially so you felt that you could say exactly what the problem was and they were able to empathise

and deal with it. I actually thought the helpline was excellent, I really did, and it was really useful but practical advice that you can actually implement.'

(Manager, horticultural company)

'They were fast and efficient and I had no problem whatsoever.'

(Admin manager, manufacturing organisation, five employees)

'It was good; obviously it wasn't a huge project or anything, it was very much a half an hour conversation but that half an hour was great and it did the job really.'

(Director, graphic design company, eight employees)

4.3.4 Conclusions

There are two main issues to note regarding adviceline take-up and usage:

1. There were far fewer users than anticipated for this service.
2. Amongst these users, demand for in-depth advice, particularly about workplace health issues, was limited.

The reasons for this are likely to lie in the fact that:

- the number of users was affected by the scale of marketing for the service (this could have been insufficient or ineffective, as it was focussed on the visit service)
- the demand for advice through the service was limited because of the option of receiving a workplace visit.

There was, in fact, little dedicated marketing activity for the adviceline. Where employers came into the service through their own efforts (e.g. through online search activity), the telephone advice service does appear to have been more fully utilised, although the numbers involved are relatively small. Employers may have been more likely to use the telephone advice service if they did not have the alternative of a workplace visit.

Where advice was delivered, it tended to relate to general health and safety problems, while demand for advice on occupational health or return-to-work issues was limited. Satisfaction with the service received were high, therefore the service appears to work well, although it might not be as extensive (in both reach and complexity) as original envisaged.

The operation of any future adviceline of a similar nature to that delivered by the WHC pilot therefore needs to be carefully piloted before major investment, and done so with a specific marketing strategy that lends itself to clear evaluation (i.e. to allow demand to be properly estimated). There is already an existing, dedicated, information line provided by the HSE[1] which deals with simple queries on general health and safety issues. This evaluation provides no clear evidence on the scale of demand for an additional service specifically focussed on occupational health. At least in part, this may be due to difficulties disentangling issues related to demand from those regarding marketing.

---

[1] *The HSE Infoline, see www.hse.gov.uk/contact/ for further details.*

4.4 WORKPLACE VISIT SERVICE

4.4.1 Take-up

The WHC pilot had a delivery target of 4,750 initial site visits. In fact, 5,413 initial site visits were conducted with employers.[1] Each pathfinder was able to exceed their initial visit target. The WHC pilot aimed to have a positive impact on 95,000 workers, based on a mean workforce size of 20. The actual average workforce size was 23 employees (using the mean, or 12 if the median is used). Provider data (from the CMS) estimates that the number of workers potentially affected by the service was 124,149.

In addition, the WHC pilot's visit service also met its aims by targeting smaller employers (89 per cent had fewer than 50 employees on the site visited), as well as employers from a range of sectors (Table 4.7). Less than one per cent of these employers indicated that they had any existing access to occupational health support.

The take-up amongst the public services sector was proportionately greater than other sectors, as evidenced by the higher proportion of this group taking up a visit than came into the service via the adviceline (30 per cent compared to 24 per cent). Additional information on employers who used the workplace visit service was available from the baseline employer survey. The majority (71 per cent) operated only on one site, and 18 per cent were new businesses (formed within the previous two years).

Table 4.7: Employers receiving workplace visits from the WHC pilot

Employer characteristic	%
Industrial sector	
Manufacturing/other primary activities	22.1
Retail and commercial services	47.8
Public services	30.0
Other	0.1
No. of records on which percentage based (N)	*5,407*
Number of missing records (N)	*6*
Total number of records (N)	*5,413*
No. of employees at worksite visited*	
1–4 employees	0.7
5–49 employees	87.9
50–250 employees	11.4
No. of records on which percentage based (N)	*5,413*
Workforce size of organisation*	
1–9 employees	35.2

[1] *There are some minor differences between data recorded on the management information system and pathfinder returns (submissions related to financial payments) with regard to the number of visits completed. The data source used throughout this evaluation report is the CMS records.*

Employer characteristic	%
5–49 employees	50.0
50–250 employees	14.6
251+ employees	0.2
No. of records on which percentage based (N)	*5,413*
Access to occupational health support	
Yes, have access	0.7
Do not have access	95.1
Don't know	4.2
No. of records on which percentage based (N)	*5,413*

* Workforce size at workplace was used to define eligibility for a workplace visit and accordingly size data is presented to reflect this. Size data for organisation size is presented in terms of ONS categories.

Source: IES analysis of WHC provider data, June 2008

According to advisers, the overall level of health and safety management performance, or the 'starting point' of employers receiving workplace visits, varied significantly. A large proportion of clients had few systems or procedures in place whilst others needed to update or upgrade what they already had. Advisers felt that the sophistication of the health and safety system in place was related to the business activity, or sector, of the employers in question. Strongly regulated organisations, such as independent schools, were felt to be more likely to have something in place, businesses such as corner shops less so. Larger employers were also more likely to have a health and safety system in place, and were also felt to be more likely to have a specific concern or to have experienced problems with absence.

> *'With the small businesses it's, "we haven't really got very much and we don't really know what we want" so it is more a review and going down the path of risk assessments and getting onto that road, whereas the larger organisations have the basics in place and they have one specific issue that they are not sure how to deal with.'*
>
> (WHC adviser)

4.4.2 How the service was used

The main reasons given by employers in the survey for their first contact with the WHC pilot reflect the general interest in health and safety information amongst SMEs noted previously in this report (see Chapter 3 and Sections 4.1 and 4.2). In addition, more specific concerns about revising/creating policies and doing risk assessments also drove up interest in the visit service (Table 4.8). A relatively high number of employers stated that the WHC pilot contacted them reflecting the importance of telemarketing in generating visit numbers.

Table 4.8: Main reason employers using the visit service contacted the WHC pilot

Main reason	%
General health and safety information required	25.4
Needed help creating/revising health and safety policy/ies	11.5
Wanted help doing risk assessment	8.0
New company – wanted to know what should be doing on health	2.9
Ongoing interest in occupational health at site/company	2.7
Concern about levels of absence/ill-health	1.8
Fire regulations	1.8
Wanted a visit	1.4
Issue/concern about specific worker	1.0
Advice about helping employee/s return to work	1.0
Accident or near miss	0.6
Stress	0.3
They contacted me/didn't contact them	21.9
Have not heard of Workplace Health Connect	8.5
Don't know	3.2
Other answers	8.0
Number of records on which percentage based (N)	*979*
*Number of missing records (N)**	*15*
Total number of records (N)	*994*

* There were 15 employers who gave more than one response.

Source: IES/BMRB survey of WHC visit recipients, 2006/2007

Interviews with employers and providers also suggest that the reasons for using the visit service were very similar to those stimulating use of the adviceline. Employers appeared to be motivated, broadly, by:

- a need for specific problem-solving where employers have a clearly identified issue that they need help with, over and above more generic concerns

  'I felt they were mainly concerned about why I'd asked them to come in, about the health issues, about work–life balance and about in general how I was going to improve my health and safety so that I could manage in a more productive way.'

  (Manager, education and social care services)

- help in the validation and checking of existing systems/policies/documents to ensure that they met legal obligations or good practice standards

'... but it did reassure me to know that what he'd suggested and the way I was going about it was the right way so – it was more of a reassurance thing than anything else'

(Manager, horticultural company)

- help in initiating health and safety systems 'from scratch' where nothing exists or procedures have been neglected.

'And she's addressed other issues that we didn't think we had an issue with, I mean with the absenteeism thing. The noise assessments and such like that, so she really went through and picked bits and pieces out which we need to address which possibly we didn't really think we needed to address. So we got more from it than just what our original concerns with the health surveillance and such. There was a lot more come out of it unexpectedly which has all been good feedback'

(Managing partner, manufacturing company)

In addition (and in line with the response to marketing highlighted in Section 4.1), some employers were attracted by the fact that the service had credibility, due to its government sponsorship.

'You feel it's reliable, being that it's a government thing. You feel confident that ... the advisers are going to be well trained and they know what they're talking about. Whereas if it was just some private company, you don't really know how well their advisers know their stuff. They might be very good, but on the other hand, you know, you can't be sure, can you?'

(Chief executive, small housing association)

Employers tend to recall the content of visits as dealing with the topics that motivated them to use the service in the first place, namely general health and safety, risk assessment, and health and safety policy development. Service guidelines dictated that all visits should involve some discussion of the WHC pilot's core three health topics (i.e. manual handling, work-related stress, and absence management), but only a minority of employers actively recall having covered these topics during visits. Provider records record hazard identification and risk assessment (17 per cent of all topics discussed), sickness absence (15 per cent) and stress (12 per cent) as the most common issues dealt with during visits.

Interviews with advisers suggested that it was often difficult to engage employers in health-related topics during visits, and that it was often necessary to deal directly with more generic employer concerns as a first stage in relationship building, before it was possible to move onto the WHC pilot's health agenda. The majority of employers interviewed as part of the case study work did not feel they had a problem with absence, work-related illness or stress (in line with the results of a different survey outlined in Chapter 3). Since the service design encouraged advisers to tailor the service to individual employer concerns, it is therefore likely that advisers spent more time dealing with safety issues where this was the major interest of the employer involved.

'People don't understand what's meant by policy and people don't understand what's meant by risk assessment. I think those are the two biggest issues out there.'

(WHC adviser)

The types of advice that advisers delivered involved:

- policy development focussed on building new policies or helping employers adapt existing policies that were, for example, too long or unwieldy

- helping employers expand the level of detail in their policies to meet external requirements. Advisers found the WHC pilot's standardised policy format a useful way to do this
- providing guidance on conducting risk assessments helping organisations to clarify their responsibilities, and undertake procedures appropriate for their organisation.

There were some companies that did use the visits to deal with specific staff issues related to ill-health or absence, and these companies found the WHC pilot well placed to support them. For the remainder, the service provided the basic, generic, health and safety advice that they wanted.

4.4.3 The two visit model

According to provider records, just over three-quarters (77 per cent) of employers received a follow up visit.[1] There was no statistical relationship between the number of visits received and organisation characteristics such as size, sector, years the organisation had been in operation, whether operating in multiple site or attitudes towards health and welfare issues as measured in the baseline survey. The only significant difference between users with regard to whether they accessed a second visit or not is that users in rural areas were less likely to have received a second visit. This could mean that it is more difficult to set up and keep visits in rural locations, possibly due to the greater travel times and distances involved for advisers. Appendix 1, Table A1.2 presents a full outline of this result.

Most organisations found the process of the initial visit set up to be efficient and speedy. The visit itself generally lasted between one and half hours and half a day. It normally involved a walk around the workplace, a review of existing health and safety systems, and a discussion of issues of concern. In general, advisers noted that dealing with employer concerns in the first instance developed trust and a platform on which to broach other issues, such as stress and sickness absence when they went onto visit a second time.

The usefulness and purpose of the follow-up visit tended to vary depending on the nature of the initial visit and the organisation's specific issues. The two-visit model worked well for most clients, and those that did not go on to receive a follow-up visit appear to have felt either that they didn't need one, or that did not have time for one. It is worth noting that having insufficient time does not indicate insufficient need. Thus, whilst the two-visit structure is useful for many employers, it may not be appropriate, or welcomed, in all cases. Some employers stated that they would have preferred access to longer-term support, and would have been happy to move to a model involving more, but shorter, visits if this had been possible. There would clearly be cost implications of providing this type of service, however.

Whether employers did or did not take up the offer of a follow-up visit was related to a range of endogenous factors (i.e. those arising from within employers rather than being due to external factors), such as their business needs, their ability to make changes without further support and the priority given to health and safety within the company. The content of both the initial and follow-up visits also differed across employers reflecting the diversity of SMEs using the service. The likelihood is that those users receiving a follow-up visit are

---

[1] *Employers coming into the service during January and February 2008 were only offered a first visit as there was no longer time for the follow up. Overall, around three per cent of those employers receiving an initial visit would not have been able to receive a follow-up.*

different in some ways to those electing not to. It is therefore not surprising that, as a result of the diversity of business needs and drivers, which in turn impact on whether a follow-up visit is taken up or not, that there is no direct relationship between the number of visits received and the number of measures implemented between the baseline and follow-up surveys.

The implications for any future service design are that expecting and encouraging all employers to engage in a second face-to-face contact with the service may not be necessary, and could be left more to the discretion of advisers/employers. However, the WHC pilot model was based on the fact that the follow-up visit would consolidate learning from the first, so abandoning all attempts at a follow-up could affect the ability of the service to transfer knowledge into SMEs. Considering less costly ways of following up some employers (e.g. those with more developed existing systems), however – for example by substituting a face-to-face visit with a telephone call – could be a useful way of further developing the model.

4.4.4 Satisfaction with the service

Satisfaction levels with the visit service were very high: 98 per cent of users were either very or fairly satisfied with the service, and the same percentage found the recommendations provided by the service very or fairly useful.

These views were also reflected in case study interviews with employers. Employers discussed how they found the visit service:

- Practical, tailored and business-friendly. As well as dealing with the main issues that employers self-identified, the service (as it was designed to) often also asked employers to think about new aspects of workplace health and safety. Employers appreciated that advisers were able to pitch their advice at a level appropriate to both the organisation and the individual manager involved.

  'I expected something that would answer my questions, point me in the right direction, tell me where I was going wrong …. And I didn't know how that would pop out, how it would actually present itself but all the things were touched upon. And my fears and concerns were assuaged and alleviated'

  (Director, financial services)

- Staffed by professional and knowledgeable advisers. Particularly important in this was the fact that advisers were felt to have experience of working within businesses, and hence, were able to bring 'real world' knowledge to bear in providing business-focussed solutions.

  'Well, I expected someone to come and be quite formulaic in terms of go through a structured process, and talk about health and safety and the law and what we needed to do to comply. What I actually received was much better than that. Because what I actually received was somebody who had real world experience of dealing with occupational personnel issues. And that was really a bit of a surprise to me – that the quality and the experience level of the person who was being deployed. Because often you get somebody who is wet behind the ears, and who's never done it in the real world. But the person who came was actually an ex personnel director. And that's a service which would be quite difficult to avail yourself of.'

  (Managing Director, small computer services company)

- Providing a useful written output, in terms of the visit report, giving employers something tangible to work towards. A written record of the advice given was also felt to be useful, as the initial visits could be 'intense' and cover a lot of ground very quickly. The report also provided useful references to potential further sources of help for the future.

  'The visit lasted so long you tend to forget a lot of things, as much as I'd written down. So when the report came really it just refreshes your memory, to what to do.'
  (Licensee's wife, small social club)

Some employers were sceptical about the service prior to their involvement, fearing either a low quality service (because it was free), or that it may be linked to enforcement (due to the HSE's involvement). Having taken part in the service, however, most employers felt that the service had met their needs and helped them address their concerns in a constructive rather than punitive manner.

4.4.5 Conclusions

The workplace visit service was operationally successful in that it met its target user numbers and was delivered largely in keeping with the initial service design. Satisfaction levels with the visit service were very high. This was a popular service with users, and was provided, overall, in a format and by advisers that SMEs appreciated.

Advisers were rarely called upon to use their full experience or training: nearly all clients raised issues that were related to basic health and safety. Advisers' industry knowledge, their ability to work well with different types of organisations and their ability to cover the core WHC pilot topics in a way that allowed them also to help employers with their basic safety concerns, were the key skills which made them popular and successful with clients. This should be considered in the planning of any future service design. Not all advisers, it would appear, need to have high levels of training in health and safety. Whilst access to more highly qualified advisers might be necessary for some organisations with specific and complex needs, most smaller employers need only a basic level of support to make improvements in the first instance.

SMEs valued how the WHC pilot helped them interpret health and safety requirements, and tailor policies and practices to suit their organisation. Advice on existing policies was often to simplify these, rather than extend them. This could potentially be a useful way of marketing this type of support to SMEs in the future. So too could using quotes/comments from previous users, particularly those that help to break down the initial barriers to service use (e.g. 'I didn't think it would be helpful but it was').

4.5 REFERRALS ONTO FURTHER SUPPORT

As part of the WHC pilot, advisers from both the regional pathfinders and adviceline were able to direct employers to local approved specialists who could help the organisation solve any long-term/more complicated problems. These specialists included physiotherapists, ergonomists, engineers, OH professionals, hygienists and occupational health nurses. Employers would need to fund these additional services themselves. Out of the 5,413 employers receiving an initial visit, only 237 (four per cent) were directed to a third-party provider. Employers were signposted to a wide range of organisations: these 237 employers were directed to more than 80 separate organisations.

Data from the employer survey on this is limited, reflecting the small number of users receiving referrals: only 26 organisations included in the survey had been directed to a third party provider. Of these, ten stated that they had gone on to contact the relevant provider,

five stated they planned to do so, and the remaining five had no plans to contact the provider as they did not think the provider's help was needed.

Pathfinder service managers identified suppliers of health and safety training as the main type of referral made. A number of employers had also been pointed in the direction of occupational health hygienists, particularly for tackling issues around noise, vibration and air monitoring, about which employers lacked awareness. Specialist asbestos surveyors were another relatively common type of referral. Referrals to medical professionals were rare.

4.5.1 Conclusion

The main conclusion relating to this aspect of the service is that there appeared to be little need or demand for specialist support, beyond that offered by the WHC pilot, amongst SMEs.

5 ESTIMATING THE IMPACT OF THE WHC PILOT'S VISIT SERVICE

This chapter is designed to meet the evaluation objective which sets out the need to assess the net impact of the service on the incidence and duration of occupationally related ill-health and injury. It is only concerned with the impact of the workplace visit service, as insufficient numbers of adviceline users were available (as described in earlier chapters) to conduct a full impact analysis of this element of the service.

5.1 CHAPTER SUMMARY

Involvement in the WHC pilot's visit service had a statistically significant effect of:

- increasing the likelihood of organisations having formal centralised systems recording absence, accidents and injuries
- increasing the likelihood that workers receive training and specifically training on conducting risk assessments
- increasing the likelihood that risk assessments are undertaken more frequently.

There was no *direct* link between involvement with the WHC pilot and changes to accident or illness rates. There was, however, a link between the improvements made by WHC pilot users on the intermediate indicators and their accident rates. The total estimated effects of the WHC pilot were a reduction in accident rates of 0.54 percentage points per year.

The fact that the same links could not be proven in relation to health outcomes could reflect the fact that accident data is less difficult to compile and changes to practice can have a more immediate effect on safety than on health. However, given the focus, in practice, of pilot activities on general health and safety issues, the greater prominence of safety outcomes is not wholly surprising.

5.2 DATA SOURCES AND LIMITATIONS

In the specification for the evaluation of the WHC pilot, the impact assessment was asked to measure the overall net impact of the support provided through the service, in terms of the following client outcomes:

- the change in number of cases of ill-health, and those caused or made worse by work
- the change in number of injuries in the workplace
- any other benefits of OHSR support for employers, such as improved control of risks.

This section presents an analysis of the impacts of the WHC pilot in an attempt to assess these outcomes. The results are used to estimate the benefits of the programme, which are then used in the cost-benefit analysis (CBA) presented in Chapter 7.

The main source of data for this was the two-wave survey of users and a non-user comparator group (Chapter 2, Section 2.4 gives a full description of the methodology used in this survey). Although adviceline users were included in the research design, there were insufficient users available to participate in the impact survey to allow an impact assessment to be undertaken of this aspect of the service (see Chapter 2, Section 2.1.1 for a more detailed discussion of this issue).

Throughout the analysis a number of organisations are excluded on the basis that their inclusion may distort the results. The reasons for the exclusions are provided in Appendix 2. Principally, they relate to the exclusion of organisations which had a longer than average elapsed time between initial contact with the WHC pilot and their initial interview for the Impact Survey to minimise recall bias. Also that those based in areas where the pathfinder and government office regions overlap were excluded to avoid confusion between the effects of the WHC pilot and regional effects. Finally, multiple site organisations were excluded to avoid errors in the calculation of absence and accident rate data (i.e. to avoid cases where confusion exists between responses in terms of organisation versus site). The exclusions result in an available sample for the analysis of 292 WHC pilot users and 520 comparator organisations.

There are a number of data limitations which make it difficult to directly measure the impact of the WHC pilot on health and safety outcomes. Perhaps most important is the fact that health outcomes can take some time to emerge, and therefore become detectable via a reduction in absence rates. Similarly, processes can take some time to improve, and might not immediately feed through into health outcomes. Both these issues prevent the full, potential, impact of the programme from being assessed, unless the evaluation period can be extended to cover a time span that is sufficiently wide to include all possible health outcomes. That was not possible in the case of this evaluation.

5.3 ESTIMATING IMPACT

To estimate the benefits of the WHC pilot in terms of changes in health and safety outcomes, data was collected for organisations receiving a workplace visit and comparator organisations located in regions where the WHC visit service was not available. The scale of change experienced by users was then compared to that experienced amongst the comparator group. However, simply comparing these changes is not sufficient, because the two groups might have different characteristics which would, in themselves, affect outcomes. A simple comparison, therefore, would not clearly identify whether any observed differences could be attributed to the WHC pilot (the treatment) or differences in organisation characteristics (heterogeneity). It is therefore necessary to distinguish between variation in health outcomes that is due to involvement in the WHC pilot from that which is due to the characteristics of organisations.

Multiple regression[1] analysis was used to do this. This measures the degree of linear association between the health outcomes and the other variables. Essentially, it is a technique used to learn more about the relationship between several independent (or predictor) variables and a dependent (or criterion) variable. Thus, predicting the health outcome of an organisation taking into account its size, sector, location and other characteristics, to isolate the 'pure' impact of the WHC pilot holding other factors constant.[2] Two examples of the models used are provided in Appendix 16.

A key challenge in this analysis is to disentangle the programme's impact on the *measurement* of health and safety from its actual impact on health and safety. The WHC pilot was not expected to directly affect health and safety outcomes, it was reliant on improvements to practice that in turn would potentially affect outcomes. Thus, it is entirely

---

[1] *The regression techniques can be performed using most statistics packages. STATA 10 (Intercooled) was used here.*

[2] *The multiple regression approach also allows us to assess how confident we are that the estimated results reflect the underlying processes or whether they have just arisen by chance.*

possible, and anticipated in the design of the pilot, that involvement with the WHC pilot activities would result in participating employers changing the way that they record accidents and episodes of ill-health. Improvements to record-keeping behaviours could result in greater accuracy in estimates of ill-health and accident rates, and could potentially lead to an increase in reported levels. Impact is therefore estimated in two stages:

- Stage 1: Estimates are made of the impact of the WHC pilot on indicators of best practice (intermediate outcomes) in health and safety.
- Stage 2: Estimates are then made of how these indicators affect final outcomes (i.e. rates of injuries and ill-health).

Involvement in the WHC pilot actually does make organisations more likely (as described in Section 5.5.1) to:

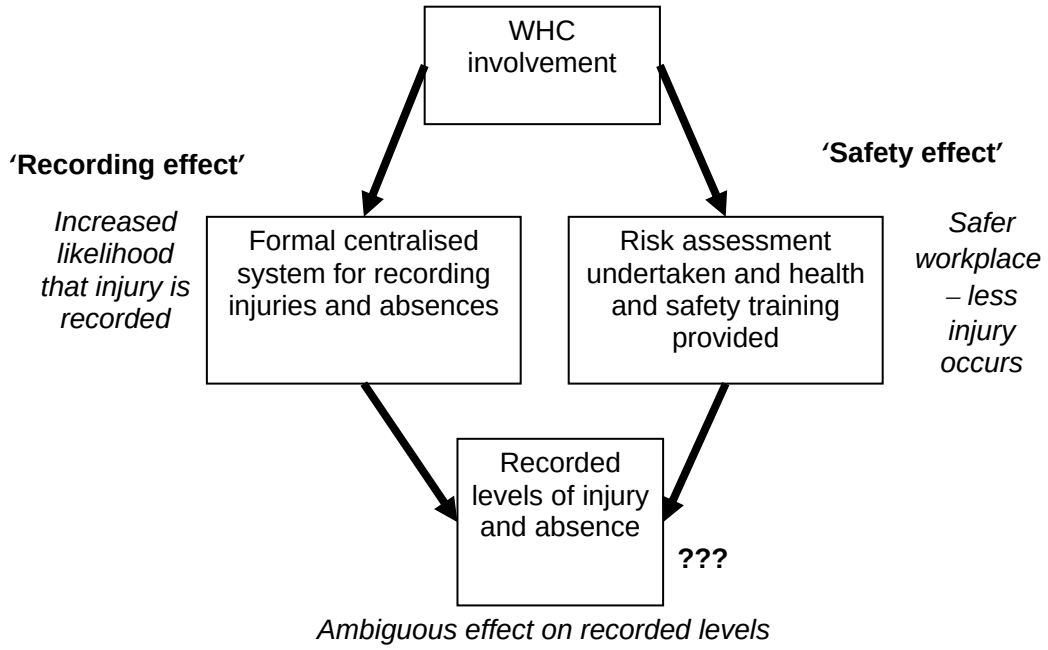
- have in place formal centralised systems for recording accidents (WHC users had an increased probability over non-users of one per cent); and absences (WHC users had an increased probability over non-users of six per cent)
- regularly undertake risk assessment (WHC users had an increased probability over non-users of 8 per cent)
- have risk assessment undertaken by staff with formal training (WHC users had an increased probability over non-users of 13 per cent)
- provide or pay for health and safety training for employees (WHC users had an increased probability over non-users of 12 per cent).

It is likely that the first of these effects would increase the likelihood of an absence or injury being recorded (i.e. introduce a 'recording effect'). The other three effects are likely to reduce the number of injuries and absences that actually occur (i.e. introduced a 'health/safety effect'). Taken together, the recording effect and the health/safety effect might offset each other, with the resulting overall effect statistically insignificant (i.e. statistically not different from zero). This is illustrated in Figure 5.1.

The purpose of the impact analysis is therefore to separate out the two effects (i.e. changes to recording versus changes to other aspects of health and safety practice). To do so, the impact of various risk assessment and training outcomes are estimated within a group of organisations for whom the recording measures remain the same over time. The combined effects of the WHC pilot on training and risk assessment measures, and their impact on someone being injured at work, provide an estimate of the total effect of the WHC pilot on the number of injuries, whilst removing the effect of the programme on recording procedures. By looking at the impact of the WHC pilot on only those organisations where a recording effect isn't introduced (via improvements to recording systems), a clearer estimate of the effects of the WHC pilot on final outcomes (via other intermediate outcomes, and/or directly) can be obtained.

This analysis suggests that the programme reduces the likelihood of injuries by 0.54 percentage points per year. Comparable results are not detected for the various measures of ill-health. Later sections in this chapter provide a more detailed discussion of these findings.

Figure 5.1: How involvement in the WHC pilot might affect recorded outcomes



Source: Frontier Economics

5.4 METHODOLOGY

The impact survey dataset includes 520 organisations that had used the WHC pilot's workplace visit service (the 'treatment group') and 1,609 organisations from outside the WHC areas (the 'comparator group'). Each organisation was interviewed twice, with a year between interviews, regarding a variety of health and safety outcomes (described in detail below). The purpose of having two survey waves to collect information was to reconstruct the situation 'before' involvement in the WHC pilot, and examine the situation again within the same organisations one year later to gain an 'after' picture; also providing data for the comparator organisations over the same period.

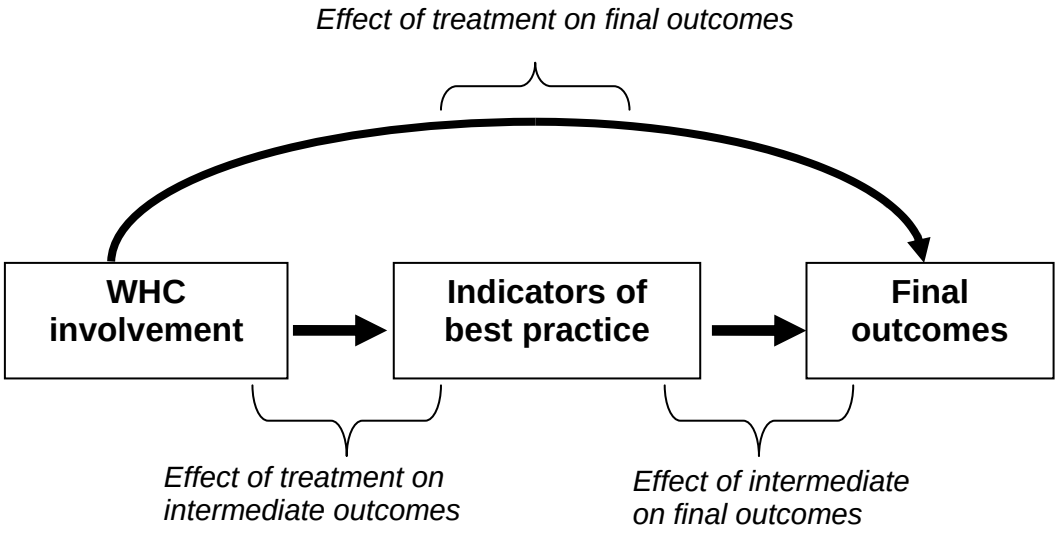
The survey included questions on a range of health and safety outcomes. These included:

- general indicators of best practice ('**intermediate outcomes**') – for example, accurate recording of accidents, absences and illness made worse by work; regular risk assessment; health and safety training.
- health and accident rate data ('**final outcomes**') – for example, the number of sick days experienced by the organisation, the number of workers who have experienced sickness, injury, or illness made worse by work, and the number who have suffered injuries resulting in an absence of four or more days.

One way of evaluating the impact of the WHC pilot is to look directly at the relationship between involvement in the pilot and final outcomes. This approach, however, does not produce robust results because in addition to improving safety, using the WHC pilot can change the way that the final outcomes are recorded.

Alternatively, the relationship can be considered in two stages, looking first at the effect of the WHC pilot on intermediate outcomes and then looking at the effect of the intermediate outcomes on the final outcomes. These different approaches are shown in Figure 5.2.

Figure 5.2: Schematic of the links between involvement in the WHC pilot, intermediate and final outcomes



Source: Frontier Economics

These relationships are examined using difference-in-difference analysis.[1] This looks at the changes in outcomes between the two survey waves, and tests whether these changes are different for the WHC pilot user and comparator groups. For example, if injuries fell in the WHC pilot group significantly more than they fell in the comparator group, this would suggest that involvement with the WHC pilot reduces injuries.

In addition to the range of health and safety information gathered at the two interviews, information is also available regarding general organisational characteristics. It is important to control for these factors, because there may be differences in the composition of the two groups which could be related to the outcomes, but not related to using the WHC pilot (e.g. larger organisations may have better resources which could lead them to improve things more than smaller organisations over the time frame). If these characteristics are not explicitly accounted for their effects could be wrongly attributed to the WHC pilot.

There are many factors which could potentially affect the outcomes, but some of these factors would be difficult to measure or collate on a comparable basis across organisations. The impact survey focussed on collecting the following variables for the purposes of this analysis:

- main activity of the organisation (using SIC code, e.g. retail, manufacturing, transport)
- number of employees (and number of employees squared)
- age of organisation (in bands and in years)
- sector – primary/secondary/public
- region

---

1 *For a description of this approach and a range of further references on the technique, see: Bryson, A., Dorsett, R. and Purdon, S. (2002).* The use of propensity score matching in the evaluation of active labour market policies, *London, Department for Work and Pensions.*

- whether site is urban or rural
- whether organisation has more than one site
- whether unpaid workers work at the site
- number of unpaid workers at the site.

Clearly there is the potential for sample selection bias because organisations who opt into the WHC pilot have selected themselves (they are not assigned to be service users randomly). The danger is that their decision to opt in may be endogenously determined with their health and safety performance; this heterogeneity between treatment and control groups would not be accounted for by the explanatory variables, so the estimated effect of treatment would be biased. However, it is not clear which direction this bias would run, or how great its magnitude might be. One possibility could be that an organisation willing to get involved in the WHC pilot already has a greater interest in health and safety and so would carry out improvements irrespective of the availability of the service. Another alternative could be that organisations using the service are less confident in their ability to improve and without the service they would perform worse than average.

Several factors reduce this source of potential bias. The comparator group has been selected to match the WHC pilot user group on the basis of observable characteristics, so it might be expected to have the same motivation to improve over the same period. Also, employers in the comparator group have had to opt into a survey about health and safety at their organisation, thus it might be anticipated that participating employers have more of an interest in health and safety than those who chose not to respond. Whilst the different sampling procedures for the WHC pilot user and the comparator group samples is not ideal for impact analysis, it is an outcome of operating a programme based on voluntary participation.

A well-known method to correct for endogeneity bias is to use instrumental variables (IV) estimation. This involves finding an instrument that is correlated with the endogenous variable but uncorrelated with the dependent variable. Using the instrument to identify the endogenous variable removes the bias, because the instrument is not correlated with the dependent variable. However, we were unable to find a valid instrument to use in this case. Further detail is provided below.

5.5 EFFECT OF THE WHC PILOT ON FINAL OUTCOMES

It is possible to examine five different final outcomes:

- number of workers who have taken sick leave
- number of workers who have experienced injuries
- number of sick days taken by workers
- number of workers affected by illness made worse by work
- number of workers who have experienced injuries resulting in absence of four days or more.

Because organisations in the sample range from 5 to 250 employees, scale effects are removed by dividing these variables by the number of employees.

Changes in final outcomes are estimated as a function of the characteristics of the organisation, and whether or not it used the WHC pilot, by using the Ordinary Least Squares

(OLS) estimator.[1] Including employer characteristics in the regression equation allows for the possibility that any change in final outcomes depends on the fixed characteristics of the organisation (e.g. a change in injury levels could be specific to only one sector). This analysis specification means that changes to final outcomes are not wrongly attributed to involvement in the WHC pilot, when they are actually attributed to fixed employer characteristics.

We looked for valid instruments to use for IV estimation, in order to test and correct for endogeneity bias. A priori, it was not clear what such an instrument would be. Since we had a fairly limited set of control variables in the data we tried using each in turn as an instrument. None of them passed all of the necessary tests for a valid instrument[2], so we conclude that the IV approach is not feasible for analysing this data. Therefore we acknowledge the potential for unobserved heterogeneity between treatment and control groups to bias the results, although we are unsure what the magnitude or direction of that bias might be.

The following equations are estimated using OLS:

- Change in % of workers experiencing injury = a + b*characteristics + c*treatment.
- Change in % of workers who were sick = a + b*characteristics + c*treatment.
- Change in % workers with illness made worse by work = a + b*characteristics + c*treatment.
- Change in % of workers experiencing four day absence = a + b*characteristics + c*treatment.
- Change in # sick days per worker= a + b*characteristics + c*treatment.

The results are presented in Table 5.1. The effect of WHC pilot use (i.e. the 'treatment') on the percentage of worker measures should be interpreted in percentage point terms – for example, using the WHC pilot increases the proportion of workers reported as having experienced injury by 2.24 percentage points.

It is also important to understand the statistical significance of the results. A statistically significant result means that we have a high degree of confidence that the estimated effect could not have arisen by chance. None of the results estimated for final outcomes are statistically significant.[3]

---

[1] *The OLS regression is a special (and the most common) kind of regression. It is based on the least squares method of finding regression parameters.*

[2] *These tests were performed using the 'ivreg2' command, downloadable from: http://ideas.repec.org/c/boc/bocode/s425401.html. For testing instruments we used Sargan over identification test, the Anderson under identification tests and various forms of the weak identification test. The Cragg-Donald Wald F-statistic is automatically generated in ivreg2 and cited therein. The Hansen-Hausman-Newey test is whether n*(PR^2)/(1-PR^2)>30, where n is the sample size and PR^2 is the partial R-squared in the first-stage regression (see Hansen,C., Hausman, J. and Newey, W.(2005)* Many Weak Instruments and Microeconometric Practice*, with C. Hansen and W. Newey, mimeo July 2005).*

[3] *We have also estimated the statistical significance of the results using White's robust standard error. Whether the robust or the unadjusted standard errors are used, the results are not materially affected. In both cases the relationship between treatment and final outcomes is statistically insignificant.*

Table 5.1: Direct effect of the WHC pilot on final outcomes

Final outcome	Effect of WHC	Standard error	Statistical significance of effect
% of workers experiencing injury	0.0224	0.0191	Insignificant
% of workers who were sick	-0.0099	0.0290	Insignificant
% workers with illness made worse by work	0.0004	0.0092	Insignificant
% of workers experiencing four day absence	0.0083	0.0155	Insignificant
# sick days per worker	-0.6085	0.4036	Insignificant

Source: Frontier Economics

There are three possible explanations for these results:

- The WHC pilot does not have any statistically significant effect on the final outcomes.
- The WHC pilot does not have any statistically significant effect on the final outcomes within the evaluation period.
- The effects are inadequately picked up in the evaluation data for some other reason.

By estimating the impact of the WHC pilot on the final outcomes directly, two different effects (the 'recording' and 'health/safety effects' – discussed earlier in Section 5.3) are being measured and which might work in opposite directions. Also, WHC pilot users might have improved their record-keeping, and therefore record a greater proportion of the accidents actually occurring than they did before the intervention. This might conceal the effect of the WHC pilot on improving underlying health/safety levels.

To explore this further, the analysis can be broken down into two stages – looking separately at the effect of the WHC pilot on intermediate outcomes, and the effect of intermediate on final outcomes.

5.6 TWO-STAGE ESTIMATION OF EFFECTS

5.6.1 Stage 1: Effect of the WHC pilot on intermediate outcomes

The first stage is to consider the effect of WHC pilot usage on each intermediate outcome in turn. The impact of involvement with the service is estimated on the different aspects of an employer's health and safety practices and policies, to pinpoint the exact changes that result. For example, are the changes predominantly related to record-keeping, to regular risk assessment or to offering more training?

An additional complication arises in this analysis because of the fact that the intermediate outcomes are binary variables (i.e. either an organisation keeps records of work-related sickness absence or it does not). The probability that a binary variable takes a certain value must be between zero and one. It cannot be negative or assume values greater than one. Therefore, we use a probit model, which is the standard method of analysing binary

variables.[1] This allows us to estimate the change in the probability of an organisation having that intermediate outcome in place as a function of its characteristics and whether it is treated or not.

We use a time dummy to control for heterogeneity over time. We use interactions of time with the control variables, thus allowing for changes over time that are correlated with the organisation's characteristics. It could also be useful to add fixed effects dummies to account for unobserved heterogeneity between individuals. However, in the context of the probit model the fixed effects estimator is inconsistent, so we use the conventional probit estimator.[2]

It should be noted that we use regional dummies in these regressions. Regions are either treatment regions or comparator regions; so these dummies implicitly contain within them a treatment dummy also. Hence, we mop up any heterogeneity there may be between the treatment group and the comparator group. This reduces the size of the unobserved component available to be explained by the regressors.

The results of this analysis are shown in Table 5.2. Use of the WHC pilot has a statistically significant effect of increasing the likelihood of organisations having formal centralised systems recording accidents and injuries, providing risk assessment training, ensuring that employees doing risk assessment are trained, and that these assessments are regularly undertaken. The magnitude of the effects we calculate are based on the characteristics of an 'average' organisation. That is, we calculate the marginal effects for an organisation with characteristics of the average of the sample (from both treatment and comparator groups). We do this for the second time period, as we are addressing the question of what the outcome might be after the treatment.

---

[1] *To implement this in a difference-in-difference setting, we estimate the probit model as a panel with time-dependent coefficients. Alternatively, one could use logit model, which is similar to probit. For example, Gujarati states that 'there is no compelling reason to choose one over the other' (Gujarati, Basic Econometrics, 2003, page 614).*

[2] *If the number of time periods T is small and the number groups N is large, then the fixed effects probit estimator is inconsistent. This is known as an incidental parameters problem. For an overview of the topic see Hsiao, Analysis of Panel Data, 2003, page 194–198. A Monte Carlo simulation is provided in The Incidental Parameters Problem and the Problem of Initial Conditions in Estimating a Discrete Time-Discrete Data Stochastic Process, Heckman in Manski and McFadden Structural Analysis of Discrete Data with Economietric Applications, 1981. The fixed effects probit model is not available in conventional statistical packages such as Stata. An alternative approach to using fixed effects in a binary dependent variable would have been to use a fixed effects conditional logit model (for details see Baltagi Econometric Analysis of Panel Data – Fourth Edition Chapter 11). However, this model did not seem appropriate in this case, since for some intermediate outcomes it produced a non-concave log-likelihood function. Finally, we compared the results from the probit model against those from an OLS fixed effects model, and the two were similar, suggesting that fixed effects do not have a major impact on our analysis.*

Table 5.2: Effect of the WHC pilot on intermediate outcomes

Intermediate outcomes	Probability of outcome if organisation not involved in WHC %	Increase in probability from WHC involvement (percentage points)	Probability of outcome if organisation involved in WHC %	Statistical significance (using 95% confidence interval)[1]
Formal centralised system to keep record absence	91	6	97	Significant
Formal centralised system to record accidents	99	1	100	Significant
Keep records of illness, disability or health problems caused/made worse by work	59	-2	57	Insignificant
Whether there is a formal procedure to find out the causes of a work-related illness, disability or a problem	28	3	31	Insignificant
Whether there is a formal procedure for ensuring that workers are involved in health and safety	34	5	39	Insignificant
Whether person who undertake risk assessment has a formal training	55	13	68	Significant
Whether person who undertakes risk assessment has health and safety qualification	20	3	23	Insignificant
Whether there is a clear guidance to help workers return to work following a long-term sickness absence	98	0	99	Insignificant
Regularly undertake risk assessment	81	8	88	Significant
Whether training in health and safety provided or paid for by employer	55	12	67	Significant

Source: Frontier Economics

5.6.2 Stage 2: Effect of intermediate on final outcomes

The analysis now considers how these intermediate outcomes in turn affect the final outcomes. The following equations are estimated using OLS:

- Change in % of workers experiencing injury = a + b*characteristics +c*change in intermediate outcomes.
- Change in % of workers who were sick = a + b*characteristics +c*change in intermediate outcomes.

[1] *Whether the model is estimated using unadjusted or robust standard errors, this does not have any impact on the statistical significance of the effect of treatment on intermediate outcomes.*

- Change in % workers with illness made worse by work = a + b*characteristics +c*change in intermediate outcomes.
- Change in % of workers experiencing four day absence = a + b*characteristics +c*change in intermediate outcomes.
- Change in # sick days per worker = a + b*characteristics +c*change in intermediate outcomes.

A dummy is included for whether an organisation is in the WHC pilot user group or not. This allows any correlation between the WHC pilot user group and the final outcome to be accounted for. If use of the WHC pilot is correlated with both the intermediate and final outcomes, its effects would be wrongly attributed to the intermediate outcomes. Use of the dummy variable removes this potential source of bias.

The fixed characteristics of employers are again included in the regression equation to allow for the possibility that the change in final outcomes depends on these, and is not attributed to the other variables.

It is also necessary to test whether changes in recording affect the estimates. To remove the recording effect all organisations whose recording practices changed over time are removed from the sample. This brings the sample size down to 371 organisations (82 treated) for injuries, less for the other outcomes.[1] The impact of the remaining six intermediate outcomes are then examined, all of which are expected to improve employers' health and safety.

Table 5.3 provides the results.

To interpret the results in this table, first examine whether the number given in any cell is positive or negative. If the number is negative this means that the impact of the intermediate on the final outcome is to reduce it (and vice versa). So, for example, providing employees with health and safety training reduces the probability of injuries. Next, to interpret the scale of this reduction in terms of percentage points, take the number and multiply it by 100. Thus, offering training results in a reduction to an organisation's accident rate of eight percentage points. Using the same process, having procedures in place to help workers return to work after long-term illness, for example, reduces the number of sick days per worker by 26 percentage points.

Because there is a large degree of correlation between the intermediate outcomes, it is difficult to individually identify their effects on the final outcomes. For example, one measure is observed to increase injury whereas another to decrease it. Considering one of these results in isolation, therefore, would not be meaningful. It is therefore necessary to focus on the total effect, i.e. looking at the impact of all intermediate measures simultaneously.

This shows that the intermediate outcomes are jointly significant in relation to injuries when OLS standard errors are used. If robust standard errors are used the intermediate outcomes become jointly insignificant. Hence, the borderline nature of the significance should be appreciated. For the other final outcomes the intermediate outcomes are all jointly insignificant (both individually and jointly).

---

[1] *Due to missing observations, sample sizes are smaller for the other final outcomes: sick workers – 244 observations; illness made worse by work – 175 observations; four-day absence – 89 observations; sick days – 229 observations.*

Table 5.3: Percentage point effects of intermediate on final outcomes

	% of workers experiencing injury	% of workers who were sick	% workers with illness made worse by work	% workers experiencing four-day absence	No. of sick days per worker
Workers are involved in health and safety	-0.0215	0.0135	0.0088	0.0837	0.5359
Regularly undertake risk assessment	0.0278	0.0377	-0.0006	-0.0177	-0.1261
Whether person who undertakes risk assessment has a formal training	0.0300	-0.0631	0.0064	0.0021	0.0185
Whether person who undertakes risk assessment has health and safety qualification	-0.0152	0.0656	-0.0095	0.0222	-0.1791
Whether there is a clear guidance to help workers return to work following a long-term sickness absence	-0.0317	-0.0901	0.0070	0.0036	-0.2672
Whether training in health and safety is provided or paid for by employer	-0.0802	-0.0258	-0.0049	0.0076	-0.2843
Joint significance of intermediate effects	Significant	Insignificant	Insignificant	Insignificant	Insignificant

Source: Frontier Economics analysis of IES/BMRB survey of WHC users and comparator group 2006/07 and 2007/08

The issue of not using White heteroskedasticity robust estimates of the covariance matrix of the coefficients should be borne in mind. While these provide consistent estimates in large samples their small sample properties may be worse than the conventional OLS standard errors, particularly in the presence of outliers. Thus, the choice of estimators in this case is not straightforward. There is evidence of heteroskedasticity in this example, as one might expect. The Breusch-Pagan/Cook-Weisberg test statistics is 114.06 which indicates the presence of heteroskedasticity. The robust standard errors, presented in Appendix 16 are similar to the OLS standard errors, smaller on some coefficients larger on others. Where there is a difference is in the joint test for the significance of all the coefficients where the p value changes from 0.04 (OLS) to 0.22 (robust standard errors). This difference seems to reflect differences in the OLS and robust estimates of the covariances between coefficients rather than the variances of the individual coefficients, which are similar. Given that our

sample size is relatively small[1]; we were not sure how precisely these covariances are estimated by robust methods and, therefore, whether the robust or OLS covariance estimates are more reliable. We chose to use the OLS covariance matrix which indicates a significant effect.

5.6.3 Estimating total effect

The next stage is to combine the two effects, i.e. (i) the effect of using the WHC pilot on intermediate outputs; and (ii) the effect of the intermediate outputs on the final outcomes. Practically, this is achieved by multiplying the two sets of coefficients from Stage 1 and Stage 2 regressions. The overall effect of involvement with the WHC pilot on the likelihood of injuries is 0.54 percentage points (detailed calculations are provided in Table 5.4).

The effects of using the WHC pilot on other final outcomes are found to be statistically insignificant.

Table 5.4: Combined effect of the WHC pilot on the number of injuries

	(A) Effect of WHC on intermediate outcome (from Table 5.1)	(B) Effect of intermediate outcome on % workers injured (from Table 5.2)	(C = A x B) Product of two effects, to give effect of WHC on % workers injured
Workers are involved in health and safety	5%	-0.0215	-0.0011
Regularly undertake risk assessment	8%	0.0278	0.0021
Whether person who undertakes risk assessment has a formal training	13%	0.0300	0.0035
Whether person who undertakes risk assessment has health and safety qualification	3%	-0.0152	-0.0005
Whether there is a clear guidance to help workers return to work following a long-term sickness absence	0%	-0.0317	-0.0001
Whether training in health and safety provided or paid for by employer	12%	-0.0802	-0.0093
Total effect		-0.0054	

Source: Frontier Economics analysis of IES/BMRB survey of WHC users and comparator group 2006/7 and 2007/8

[1] *Note the asymptotics for the estimated coefficients and the asymptotics for the standard errors of the estimated coefficient are different. The estimate of β converges to its true value quicker than the estimate of its standard error does. Thus a sample may be small with regard to estimating the standard error but not small with regard to the coefficients.*

5.7 CONCLUSIONS

It is difficult to calculate the final outcomes of a service such as that piloted by WHC in terms of reductions absence and accident rates, and it is therefore difficult to estimate the benefits of the WHC pilot. There are a range of measurement issues, such as: employer records and recall; the latency of health effects; and recording effects introduced through changes to practice which may inflate estimates of ill-health and accidents, when compared to estimates made prior to WHC involvement, which could have been based on less precise records.

It is possible to detect a range of benefits of the WHC pilot in terms of better health and safety practice, but then difficult to link these improvements to the final outcomes, particularly in relation to health. However, these improvements are an important indicator of the impact of the WHC pilot in their own right. It was also possible to link improvements in health and safety practice to a reduction in accident rates. This link can be used to estimate the benefits of the WHC pilot in monetary terms (as presented in Chapter 7). However, clearly these outcomes do not relate to the primary aims of the service as it was designed, and there is no evidence that the service made any impact on health outcomes.

It is worth considering, however, why no health outcomes were detected. As discussed, this could be due to the problems in measuring these outcomes (i.e. they exist, or will do, but have not been picked up). Alternatively, this result could reflect the fact that the focus of the service, in practice, was on generic health and safety, rather than specific occupational health issues. Thus a greater impact on accidents than health might be expected.

6 SELF-ASSESSED USER OUTCOMES FROM THE PILOT

The purpose of this chapter is to provide supplementary information on the changes made by employers as a result of using the WHC pilot to that presented in Chapter 5. In terms of the objectives of the evaluation, this contributes to the assessment of impact of both the adviceline and visit service, but impact as seen by users, rather than from a quantitative, analytical, standpoint.

6.1 CHAPTER SUMMARY

- Interviews with a limited number of adviceline users suggest that using the service was beneficial for a number of reasons:
  - it allowed them more speedy access to answers than if they had to find them on their own
  - it provided reassurance that any actions they were taking or changes they wanted to make were the right ones and gave them someone to talk to
  - it signposted them onto the right documents to use as resources with current issues or in the future.
- The majority of employers (around three-quarters) felt that they had made changes as a result of using the workplace visit service. However, employers appear to take action within the first few months after their involvement with the service, as the proportion stating they had made changes did not increase over the period of a year.
- The main perceived benefits of the visit service were:
  - redrafted, refined and simplified health and safety policies
  - better identification of workplace hazards
  - the adoption of suitable risk assessment procedures.
- The main changes identified by employers that had resulted from their call to the adviceline or from a workplace visit were therefore that they had changed their health and safety policies, or conducted better or more risk assessments.
- Most employers felt that they would have taken some form of action in the absence of the WHC pilot. There is therefore a question of whether use of the WHC pilot acted more to accelerate actions that employers would have taken over time anyway, or resulted in true additionally (in that actions were taken that would not have been taken in the absence of the service). The actions that employers believe they would have taken if the WHC pilot had not been available, for both adviceline and workplace visit service users, were mainly limited to using the Internet or HSE resources, or relying on their own common sense.
- Around a quarter of visit recipients and one-third of adviceline users (although the sample involved here is small) indicated that they would have paid for an external provider to assist them in the absence of the WHC pilot.

6.2 DATA SOURCES AND LIMITATIONS

The WHC pilot was operated as a flexible service, designed to meet the needs of a wide range of employers using the service for a range of potentially very different reasons.

Qualitative data from the employer case studies demonstrate how employers using the WHC pilot believe that they have altered their practice as a result of the advice and support they have received. This provides useful complementary data to the impact assessment...

Additional data is also available from the impact survey. In addition to measuring changes to indicators of health and safety practice, employers were also asked to state whether, in their opinion, they had made any changes as a result of using the WHC pilot.

Whilst this is interesting information, particularly in relation to the adviceline where no impact assessment is possible, the reliability of this type of data which asks for a subjective assessment of changes made must be considered. There could potentially be problems with respondent recall and/or the precision of their response. An additional problem is the potential effects of social desirability bias, where individuals respond to questions in a way that they believe will give a positive impression of them and their actions to the interviewer. In this case, this could result in individuals being more likely to say that they have made changes than is actually the case.

The data in this chapter should therefore only be taken to indicate in the broadest sense the proportion of users that may have made changes, but what it does offer is additional information on the types of changes made by employers, and their views about these changes. The data presented in Chapter 5 clearly provides better data on the number of changes made, and whether these changes are significant in statistical terms, but this chapter provides supporting information which complements this.

Confidence intervals are provided in relation to survey data for users of the visit service, to reflect the level of precision of the estimates. Due to problems in defining the population of adviceline users (described more fully in Chapter 2, Section 2.4.5), this was not possible for data relating to users who only called the adviceline and did not go on to receive a visit.

6.3 ADVICELINE USERS

By the time of the follow-up survey, 39 per cent of adviceline users felt that they had made some form of change (Table 6.1). The fact that the proportion of adviceline users reporting changes by the follow-up survey is lower than that reported at the time of the initial survey highlights the need for caution in the interpretation of this type of data. The adviceline offered a less intensive intervention than the visit service, and recalling the effects of a potentially short telephone call over one year later, is likely to have been challenging for respondents.

Table 6.1: Whether users felt that changes had been made as a result of the WHC pilot

	Adviceline users	
Whether made changes	**Initial survey %**	**Follow-up survey %**
Yes	47	39
No, but plan to	18	5
No, and don't plan to	25	49
Don't know	10	7
Number of employers on which percentage is based (N)	*137*	*123*
Number of employers that cannot recall using service (N)	*16*	*30*

Source: IES/BMRB WHC evaluation surveys of adviceline users 2006/2007 and 2007/2008

When asked what type of changes had been made as a result of the WHC pilot, a range of responses were provided, but only two of these were provided by more than ten per cent of respondents. The two main changes employers felt had taken place were: health and safety policies updated or introduced (42 per cent of adviceline users felt that this was a change they had made), and risk assessments having been conducted (30 per cent of adviceline users noted this as a change) A full breakdown of response to this question are provided in Appendix 1, Table A1.4.

Interviews with adviceline users showed that using the service was beneficial for a number of reasons; it:

- allowed them more speedy access to answers than if they had to find them on their own
- provided reassurance that any actions they were taking or changes they wanted to make were the right ones and gave them someone to talk to
- signposted them onto the right documents to use as resources with current issues or in the future.

Many adviceline users spoke about their contact in terms of getting a quick answer to a quick question. There were a number of examples where employers felt that the service had helped them to save time and/or money, compared to what they would have done without it. Even in cases where fairly simple advice was provided (i.e. not much more than what would have been available on the Internet), some users felt that a call to an adviser had helped identify the right documents and saved them time. As noted above, employers acknowledged that they would have been able to secure this information from other sources, but using the WHC pilot appeared to give employers confidence that they were doing the right thing. It also allowed them to get a definitive response much more quickly than if they were left to find the answer themselves. A number of employers discussed how useful it was to be able to talk to someone directly about their issues.

> *'It's just basically saved me time in trying to find out what I required really.'*
>
> (Admin manager, manufacturing organisation, five employees)

> *'You are still relying on trawling through the legislation and information and very often there is still things that you are not quite sure about, you think you have read it and interpreted it correctly and you are going to make the right decision but here is that little bit of doubt. Whereas if you can speak to someone on the phone or whatever I think that is extremely good.'*
>
> (Manager, manufacturing company, 60 employees)

Another area where a number of employers felt that they had benefited was in terms of being able to tender for new contracts or improve their standing, having implemented the changes recommended by the adviceline.

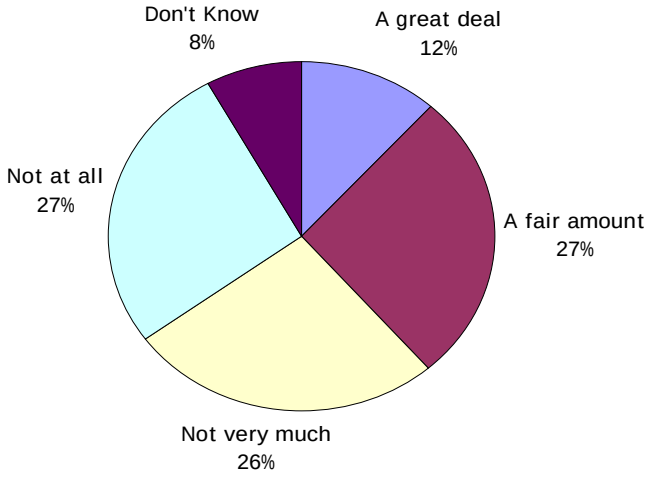
> *'As a company we are asked to tender more and more and part of the tendering process especially to the local council and the government is that they ask us to formalize our policies.'*
>
> (Director, graphic design company, eight employees)

An additional survey question was designed to measure the extent to which users believed that the help provided by the WHC pilot resulted in them making changes to their practice which otherwise would not have occurred. The majority of adviceline users (77 per cent) felt that they would have made some changes even without the presence of the WHC pilot. When asked what actions they would have taken, 32 per cent of adviceline users stated that

they might have paid for some help from an external provider. Other actions tended to involve using other free services, particularly the Internet (29 per cent indicated they would conduct an Internet search) and HSE resources (25 per cent mentioned the HSE website specifically), or falling back on their own experience/common sense (14 per cent). Evidence from the health and welfare survey (see Chapter 3, Section 3.5 for further details) suggests that around one in three employers not using the WHC pilot use and/or pay for external support to assist them with their day-to-day health and welfare issues.

Employer attitudes towards a range of health and safety issues were also recorded at both survey waves using a set of standardised attitude statements. Respondents were asked to specify on a five-point scale between 'strongly agree' and 'strongly disagree', where they would position themselves. The results show little change between survey waves 1 and 2. The results are presented in Appendix 1, Table A1.3. However, a relatively large minority (39 per cent) of employers believed that their attitudes had changed as a result of using the WHC pilot (Figure 6.1). This could mean that employer attitudes haven't actually changed, despite what they might think, but equally the questions used to pick up attitudinal change could have lacked sensitivity or just not have been the right ones. The qualitative work with adviceline users suggests that use of the adviceline generally constituted a quick call for an answer to a relatively simple question. Therefore it is possible, at least for some, that whilst employers may have taken some form of action on health and safety, this did not result in more substantial changes to their attitudes.

Figure 6.1: Adviceline user views on the extent to which using the service had changed their view of workplace health and safety



Base = all employers (N=137, with 16 missing).

Source: IES/BMRB WHC evaluation surveys of adviceline users 2006/2007

6.3.1 Conclusions

There are likely to be some respondent recall issues in relation to the perceived impact of the adviceline (as evidenced by the lower proportion of users who felt that the service had resulted in changes within their organisation at the follow-up survey than during the initial survey). For some employers, where their interaction with the adviceline was limited to a short call, it is perhaps understandable that attempting to gauge the impact of this call on their subsequent practice is challenging. A substantial minority (around 40 per cent), however, indicated that the WHC pilot has resulted in some changes taking place. This result does need to be placed in the context of the large proportion of users who believed that they

would have made these changes anyway, by consulting the HSE, the Internet more generally or using their own common sense.

The changes that respondents recalled having made as a result of their call to the service mainly involved changing their health and safety policies, or conducting better or more risk assessments. This reflects the motivations for employers using the service discussed in Chapter 4 which mainly related to traditional health and safety issues, rather than occupational health issues, and the main types of advice provided by the service as a result.

During interviews, employers identified the adviceline as having: saved them time in identifying appropriate information; provided reassurance that their interpretation of what they should be doing was correct; and helped them identify useful additional resources. The main advantages of the adviceline service, over and above other services that employers could access, were therefore related to the fact that the service offered them someone knowledgeable to talk through their issues with. Even though they may have been able to get the equivalent information elsewhere, the adviceline often provided a more informative and speedy service than was possible through other means.

6.4 VISIT RECIPIENTS

Recipients of a workplace visit from the WHC pilot were also asked a range of questions to assess their perceptions of the changes that had been made as a result of their involvement with the WHC pilot. Exactly the same proportion (78 per cent) of employers reported having made changes in the follow-up survey as in the initial survey (Table 6.2 provides further details). Whilst 16 per cent planned to make changes at the point of the initial survey, these plans do not appear to have materialised. Thus, the majority of respondents felt that they had made changes as a result of the WHC pilot, but these changes appear to have taken place in the short- to medium-, rather than longer-term (most employers were interviewed for the initial survey within three months of their first contact with the service).

Table 6.2: Whether users felt that changes had been made as a result of the WHC pilot (visit recipients)

	Initial survey	Confidence interval		Follow-up	Confidence interval	
	%	Lower	Upper	%	Lower	Upper
Yes	78	74.5	81.5	78	73.5	80.5
No, but plan to	16	12.9	19.1	3	1.7	4.7
No and don't plan to	5	3.2	6.8	13	10.2	15.8
Don't know	1	0.2	1.8	6	4.3	8.4
No. of employers on which % is based (N)	*541*			*526*		

Source: IES/BMRB WHC evaluation surveys of visit recipients 2006/2007 and 2007/2008

A wide variety of changes were highlighted, but most of these were made by relatively few respondents (a full breakdown is provided in Appendix 1, Table A4.5). The most common changes were: updating or introducing a health and safety policy (42 per cent of respondents by the follow-up survey), and conducting a risk assessment (37 per cent of respondents by the follow up-survey). Other answers were given by less than ten per cent of respondents. Only nine per cent, for example, felt that they had updated or introduced a sickness absence policy as a result of their involvement with the WHC pilot. These results are of only limited usefulness in measuring change, and the impact assessment in Chapter 5 provides a more

objective view of changes made over the course of the year following contact with the WHC pilot, but the advantages of the data presented in this chapter is that it provides further information on how users of the WHC pilot service view the changes they have made, and what employers have actually done differently.

The majority of users (69 per cent) felt it was likely that they would have made some changes even without the WHC pilot (Table 6.3). These users were then asked what actions they believed they would have taken if they hadn't used the WHC pilot. Broadly in line with the responses of adviceline users (see Section 6.3 for further details), 26 per cent of visit recipients stated that they would have been prepared to pay for some external support. Other actions included the use of the Internet (29 per cent), contact with HSE (27 per cent) or relying on their own experience/common sense (22 per cent). Table 6.4 provides further details.

Table 6.3: Perceived likelihood that changes would have been made without the WHC pilot (visit recipients)

		Confidence interval	
	%	**Lower**	**Upper**
Likely	69	65.11	72.89
Unlikely	23	19.46	26.54
Don't know or neutral	8	5.72	10.28
No. of employers on which percentage is based (N)	*498*		

Source: IES/BMRB WHC evaluation surveys of visit recipients 2006/2007 and 2007/2008

Table 6.4: Actions employers believe that they would have taken in the absence of the WHC pilot (visit recipients)

		Confidence interval	
	%	**Lower**	**Upper**
Internet search (other than HSE website)	29	25.18	32.82
Contacted HSE/HSE website	27	23.26	30.74
Paid for external provider	26	22.31	29.69
Drawn upon own experience or common sense	22	18.51	25.49
Contacted local authority/council	6	4	8
Consulted someone else (no detail)	5	3.17	6.83
Don't know	5	3.17	6.83
Contacted (external) trade association	4	2.35	5.65
Training courses	3	1.56	4.44
Fire officer/dept	1	0.16	1.84
Government agency	1	0.16	1.84
Other health and safety companies/services	1	0.16	1.84
No. of employers on which percentage is based (N)	*346*		

Note: Base includes employers who felt it very or fairly likely that they would have done something else to address their issues in the absence of WHC.

Source: IES/BMRB WHC evaluation surveys of visit recipients 2006/2007 and 2007/2008

Employer attitudes were recorded in relation to five different attitude statements in both the initial and follow-up surveys. There was little change between the two waves (as demonstrated in Appendix 1, Table A1.6). However, employers clearly believe that their involvement *with* the WHC pilot has affected their attitudes towards health and safety (*Table 6.5*). Sixty-three per cent of visit recipients felt that their attitudes had changed either a great deal or a fair amount as a result of their involvement with the service. The change was greatest amongst businesses with fewer than ten employees (*Table 6.6*), 74 per cent of whom felt that the experience of using the WHC pilot had changed their views, compared to 52 per cent of medium-sized organisations.

Table 6.5: Extent to which the WHC pilot changed users' view of health and safety (visit recipients)

		Confidence interval	
	%	**Lower**	**Upper**
A great deal	17	13.84	20.16
A fair amount	46	41.8	50.2
Not very much	25	21.35	28.65
Not at all	10	7.47	12.53
Don't know	2	0.82	3.18
No. of employers on which percentage is based (N)	*541*		

Source: IES/BMRB WHC evaluation surveys of WHC visit service users and comparator group 2006/2007

Table 6.6: Extent to which the WHC pilot changed users' view of health and safety by workplace by size (visit recipients)

	5 to 9 employees %	**10 to 49 employees %**	**50 to 249 employees%**	**Total %**
A great deal/a fair amount	74	61	52	64
Not very much/not at all	26	39	48	36
No. of employers on which percentage is based (N)	*194*	*254*	*83*	*531*

Chi-Square=15.177a $p<0.01$

Source: IES/BMRB WHC evaluation survey of WHC visit service users and comparator group 2006/07

6.4.1 Case study examples

The employer case studies involving visit recipients also provided an opportunity to explore perceptions of how the WHC pilot had helped organisations.

Case study work asked employers to provide examples of any improvements that been made as a result of the WHC pilot. The nature of these changes was often highly specific to the nature of the company, so that they would be difficult to detect via quantitative analysis. Examples are provided later in this section.

In line with the results from the survey (presented in Section 6.3.2), the most commonly discussed changes made as a result of involvement with the WHC pilot were: redrafted, refined and simplified health and safety policies, and better identification of workplace hazards and the adoption of suitable risk assessment procedures.

> *'Although we were very safety conscious before ... because we have standardised everything, we can now turn around and say to people we have done everything we possibly can to make this as safe as we can. Before we couldn't do that.'*
>
> (Director, small outdoor pursuits company, two employees plus casual staff)

Most employers did not have a specific, or current, sickness absence problem and therefore lacked an appetite for advice in this area. However, there were other examples where employers had a specific sickness absence issue, for example, where the WHC pilot provided more detailed support on occupational health issues or approaches to return to work.

> *'In the end it got so bad that I had to have the operation and then it was just right, you go and have it done and then you come back and work when you're fit, there was no pressure to come back. We discussed it, I was coming in now and again and we were discussing, when I did come back to work, what I would be able to do, what are you wanting me to do and things like that. ... If there is something that I don't feel that I could possibly do I would only have to say the word and we'd work around it.'*
>
> (Motor mechanic, motor mechanics, four employees.)

Employers also often described how they had improved their knowledge of, and confidence in dealing with, health and safety issues. In addition, a number of organisations described how the health and safety culture had changed, with workers becoming more involved in day-to-day issues. Some also discussed how their organisation was now better placed to win contracts from within the public sector due to their improved health and safety policies or procedures.

> *'To start with I thought I'd better check this and that, but now it's like the rule. It's just like the rule that you need to be in by 9am. The rule is if you're going in the freezer you've got to put that jacket on. The rule is if you're in the warehouse you've got to wear a high vis jacket. It's something that comes naturally to them now… So people are cleaning up after themselves. People are moving things and closing doors and switching lights off.'*
>
> (Office manager, wholesale retailer, 13 employees)

> *'Yes, definitely, we're getting bigger and we're bidding for bigger contracts and obviously the companies that we're working with, they want to see us with clear cut policies. This happens quite regularly now, when we do start building site work that I have to provide a full method statement and risk assessments and everything for that site. We're all prepared for it now to a large extent, I mean a lot of it's a pro forma now, it's there ready.'*
>
> (Health and safety officer, heating contractor, 15 workers)

Four examples of how employers had used the WHC pilot, and made changes as a result, are presented below. These are examples where employers were able to provide details of the types of impact that they had experienced, and may not reflect the experiences of the broader WHC pilot user population. They do, however, show how using a service such as that offered by the WHC pilot *can* change practice and behaviours when employers are receptive to it.

Example 1 (small wholesale retailer, 13 employees): Development of policies and risk assessments

The office manager of this company contacted the WHC pilot following an enforcement visit where the HSE recommended the service to help them make improvements. The employer had been given three months to improve their health and safety practice and provide training. The major risks identified by the WHC adviser related to manual handling and fire safety. There were also a few pot holes which presented risk of slips and trips and no training had been delivered to staff.

The adviser went through a risk assessment toolkit which included information on policies and accompanied the employer on a walk-through of the site. He provided DVDs on risk assessments, and training on general health and safety. In the follow-up visit they recapped on their recommendations and looked at additional toolkits such as display-screen equipment safety. The follow-up visit was welcomed by the office manager as an opportunity to check her progress:

> *'Because there were a couple of things where I said I've done this but I'm not sure that I've done it right, and he said no you haven't, what you have to do is this. So I could have carried on doing that, but him coming back and saying "no, that's actually wrong, because if you do it this way and that way it will save you time and effort" helped.'*
>
> (Office manager)

One year later the company's approach to health and safety had improved. Where previously there had been no policies in place, a number of systems had been introduced. They had conducted most of the appropriate risk assessments, had provided staff with a range of training courses (e.g. manual handling techniques and COSHH) and developed better recording systems (e.g. an accident book). Staff had been provided with personal protective equipment, such as high visibility jackets, and housekeeping was now better. A health and safety committee involving staff and management had been convened and this met every month. Overall, the WHC adviser, and staff within the company believed that the working environment had been much improved.

> *'I am pretty confident with everything I've had from Workplace Health Connect that we're on the mend.'*
>
> (Office manager)

> *'They follow all the guidelines and I had an induction when I started for health and safety. And I think for a company of its size, it's quite positive to see that they're taking such a positive role in employee welfare.'*
>
> (Credit controller)

Discussion

This example highlights the difficulties of estimating the counterfactual position for the WHC pilot. What would this company have done in the absence of the WHC adviser's visit? It seems likely that they would have taken some steps to address the concerns of the HSE inspector, so what about the WHC offer was additional?

Clearly the personalised support available from the WHC adviser was beneficial, as was access to some simple toolkits recommending step by step approaches to health and safety procedures. Whilst the WHC adviser is likely to have noted the same deficiencies as the HSE inspector, the WHC pilot was used to help them find ways to overcome these problems and

offered a higher level of personalised support in the implementation of solutions. The workplace visit from the WHC adviser appears to have helped this employer to deal with their issues more quickly, provide reassurance about their approach and/or saved them time and money in finding the best and most appropriate solutions.

Whilst it is true that some of these changes may have occurred in the absence of the WHC pilot, they could well have done so more slowly or slightly differently. It is also possible that, because of the level of support received by the company from the WHC pilot, the changes that they made to their health and safety systems went beyond what was recommended by the HSE inspector as first order concerns, although this is difficult to isolate from the employer's account.

Example 2 (small manufacturer, six employees): Effective manual handling and risk assessments

This company had only been in operation for a year prior to their contact with the WHC pilot, having previously been part of a larger company with generic health and safety systems covering a range of sites. When the company was bought out of administration by the current owners, they needed to set up their own procedures. A member of the administrative staff was given responsibility for health and safety, but due to a lack of experience in the area found the requirements overwhelming. She had never carried out a risk assessment before or seen one being done. They initially tried to set up their procedures by conducting web searches.

> *'When the new legislation came in and it said anyone with over five employees had to deal with health and safety it was just a case of finding someone that could help us. We could download so much stuff off the Internet but it wasn't giving me examples of what they wanted it was just printed forms.'*
>
> (Administrator)

The initial visit broadly consisted of a face-to-face conversation while, in the second, the adviser walked around the building and pointed out where risk assessments should be done. This was something that the interviewee valued as she hadn't previously known where to begin with regard to conducting these. The adviser pointed out several important areas she not thought of before. Their main manual handling activity involved manoeuvring heavy pallets. They often used slings to move the pallets but did not have accompanying certification documents. The adviser left some material about lifting. He then came back again for a third visit and went through these materials with staff. He also provided training materials on display-screen equipment safety use.

> *'They actually take the forklift truck in and lift the packing up to their level and they work on two levels now, they don't bend.'*
>
> (Administrator)

Discussion

For this employer, in addition to helping them navigate through a lot of information, the adviser's recommendations also led to specific procedures being introduced which improved health and safety on a day-to-day basis, and meaningful risk assessments being introduced. It seems likely that the added value of the WHC pilot was therefore not in the introduction of policies and procedures, which may have happened anyway as the employer was committed to meeting their legal obligations; rather that involvement in the WHC pilot improved the awareness and understanding of staff at different levels, and could therefore have made it more likely that procedures were adhered to. Having the adviser available helped this

business to understand their health and safety requirements, and therefore more effectively adopt their procedures to deal with these rather than other, less relevant, issues.

Example 3 (medium sized furniture manufacturer, 70 employees): Sickness absence management

This company had initially contacted HSE for help managing a long-term case of sickness absence. The employee in question had been absent from work for three years, due to stress and depression. The HSE referred them to the WHC pilot, and the Finance Director called the WHC adviceline and received in-depth advice. A workplace visit was also set up, and the employer was signposted to an occupational health provider and referred to useful publications.

By the time of the WHC adviser visit, the company had successfully engaged with the recommended occupational health provider who had made contact with the individual employee. This course of action eventually helped to resolve the matter, but the experience highlighted the need to make general improvements to their systems, and by their follow-up visit the employer had a return-to-work policy in place. One year later, the organisation was required to use this policy to deal with a new case of sickness absence.

Describing how using the WHC pilot had changed their attitudes towards sickness absence management, this employer stated:

> *'It's opened my eyes. Cost benefit is my predominant thinking. When people have been off sick in my eyes it's been a negative. We've had to replace them in the factory and cover for them. Never thinking about things from the employee's view or that we had a responsibility to try and assist that employee in coming back to work. If someone was having stress-related problems and unable to do their specific job but could have done a different job I would never have given much thought to that. I would have thought that irrelevant. Going through the procedure of having somebody off with stress and depression and seeing how he struggled with that and talking to others who had a different viewpoint. Speaking to Workplace Health Connect about it and the occupational health people, it's been an eye opener for me and made me think about a lot of other issues. It has made me much more understanding of the issues that should be taken account from what's best for the employee.*
>
> *'It's best to have healthy, happy individuals who are contributing and who feel committed and we're committed to them. If they have problems we will try and work with them. That shift in emphasis has come about after speaking to Workplace Health Connect.'*
>
> (Finance director)

Discussion

The experience of this SME highlights how working with the WHC pilot affected changes to attitudes and understanding as well as practice. The difference in this case, when compared to most other users, was that the employer actively contacted the WHC pilot to deal with a specific and ongoing health problem amongst their staff. They were also willing to use, and required the support of, further third party help. This model of support is very much what was anticipated when the WHC pilot was designed, although it was not actually what was delivered in most cases due to the more common concerns of SMEs about generic health and safety. Sickness absence problems appear to have been relatively uncommon amongst users of the WHC pilot, but this example demonstrates that the service was able to deal with them effectively when they arose.

Example 4 (small language school): Increasing confidence levels

Within this organisation, the WHC pilot was felt to have given the health and safety officer a grounding that enabled her to further develop the organisation's health and safety without further support. The individual staff member had contacted the WHC pilot herself for general support with health and safety. She described how the WHC pilot helped her to navigate the HSE website and other resources, and that now she was better placed to find information when she needed it. Her confidence had been boosted by the ability of the WHC pilot to tailor its advice to address her specific individual and business needs. In doing so, however, the service had also helped her to understand what other resources could help her in the future.

[Speaking about the HSE website]

'It doesn't explain it to you in a way that is in the context of your business, or say,"this is important to you, this isn't so don't worry about that." When you read some of the documents, it seems that everything's really important and you have to worry about everything ... [WHC] *makes it more practical and less scary. A lot of the time you read your business has to do this or that and you're not sure where to start or what to do, what you should or shouldn't implement. I'm quite well educated, but reading that stuff didn't make a lot of sense to me ... it's not really for a small business where you don't have lots of staff or time to wade through these documents .... They're not written for a company that only has two to four employees. Now that I've had some experience using these documents and having them explained to me, I can now approach them in a different frame of mind and read them with a bit more understanding, so I think the service is completely necessary for small businesses who aren't able to navigate the website and all these documents. Most companies don't want their workers to be unsafe, they don't want to make themselves unsafe, that's not the case. I think the case is nobody quite knows where to start or what they have to do or how to go about it, or the cost. That's where this service is needed.'*

(Health and safety officer)

Discussion

In this case, the WHC pilot was clearly seen as a very beneficial service. It helped the company find out what they needed to do, interpret their legal requirements and take a course of action that meant they were compliant. Did the WHC pilot really add value in this case? It is difficult to know how, and to what extent, this employer would have been able to find their way to doing the right thing without the support of the WHC pilot. Clearly they had made a start on moving forward already. However, it is not clear whether, and how quickly, they would have made changes without help. The case does highlight, however, the difficulties that smaller businesses can face in starting up systems and procedures when there is no internal expertise in place. Whether there was a need for a workplace visit, or other less intensive interventions, in order to 'kick start' progress within this businesses is more difficult to determine.

6.4.2 Conclusions

Around three-quarters of employers using the visit service felt that they had made changes in their workplace as a result of using WHC, but this proportion did not increase over the course of a year (i.e. between survey waves). Thus, employers appear to take relatively swift action as a result of the adviser visit/s or none at all.

The majority (around 70 per cent) of users felt that they would have made some changes even without their contact with the WHC pilot, and most of these would have used the Internet, HSE resources or their own common sense to address their issues (in a similar way to that noted for the adviceline). Around a quarter stated that they may have paid for an external provider. Whether this view reflects the true situation is unclear. It is possible that social desirability bias may be present in these results (i.e. employers want to appear to be better placed to deal with their issues than they actually are), particularly given the fact that few employers requested or responded to referrals onto other providers (as noted in Chapter 4, Section 4.5) which they would have been required to pay for.

Examples provided by case study participants reflected the diversity of SME needs, but generally, the way in which the visit service helped employers was to improve their general levels of health and safety. Where other, more specific, problems existed (e.g. relating to sickness absence); the WHC pilot was well placed to provide additional support. However, advisers were more commonly asked to deal with fairly basic, non-specialist, health and safety concerns.

7 COST-BENEFIT ANALYSIS

This chapter directly addresses the evaluation objective to identify the costs and benefits of the WHC pilot. It is limited, however, to consideration of the benefits of the visit service, as a full impact assessment was not possible for the adviceline.

7.1 CHAPTER SUMMARY

- The total running costs[1] of the WHC pilot were £15,499,872 at 2008-09 prices[2] which includes:
  - £2,801,854 for central marketing efforts including telemarketing
  - £858,872 to run the adviceline
  - £9,436,401 to run the workplace visit service
  - £2,036,505 for programme management.
  - £366,240 for miscellaneous and roll-out preparation
- Employers estimated the costs incurred by them as a result of their involvement with the WHC pilot (including the time they spent with an adviser, the time required to make changes and any direct spend on changes), on average, to be around £1,640. The aggregated costs for all 5,425 employers participating in the pilot of the WHC workplace visit service is therefore estimated at £8.9 million.
- The benefits of the programme are calculated to be £13.4 million this is based on the fact that the only measurable benefit which can be quantified in monetary terms is the relationship between six health and safety indicators of good practice used in the evaluation and a 0.54 percentage point reduction in accidents.
- Assigning a final value to the net benefits of the WHC pilot can be done in a range of ways, depending on which costs are included in the calculation.
- If the assumption is made that there is a lasting benefit of the WHC pilot, but this depreciates at 14 per cent per annum over 20 years, then using cost data for all aspects of provision (i.e. visit service, adviceline, programme management and marketing) and employer costs, the programme is estimated to result in a net loss of £11 million[3].

7.2 DATA SOURCES AND LIMITATIONS

The main data sources for this aspect of the evaluation are: provider records of costs; estimated benefits from the impact survey (see Chapter 5 for further details of calculations), and; estimates of the costs to business of making changes as a result of their involvement with the WHC pilot, also from the impact survey.

---

[1] *These costs do not include the cost of the evaluation of the pilot; the total cost of the pilot including evaluation was £16,638,380*

[2] *Costs of provision include some VAT. It is conventional in social cost benefit analysis to exclude transfers payments such as VAT. However as the exact level of VAT was not identified for this evaluation, this results in the total cost of provision being greater than it would be with all VAT excluded*

[3] *Because of the treatment of VAT noted above the net loss is greater than it would be with all VAT excluded.*

The benefits estimation is reliant on having as much information as possible about how WHC might have affected organisations. Whilst a range of health and safety measures are covered by this evaluation, other potential benefits were not measured or are difficult to quantify in monetary terms. For example, some employers (e.g. within construction where sub-contracting is the norm) discussed the fact that improvements to their health and safety procedures had led to them being better placed to bid for work. Similarly, it could be argued that benefits might have transferred down the supply chain, as employers involved in the WHC pilot require higher standards of practice from their sub-contractors[1].

It is also worth reiterating that no potential health benefits are factored into the calculations because no significant relationships were detected by this evaluation (as outlined in Section 7.6.2 later in this chapter). However, these health benefits are extremely difficult to measure. The absence of evidence regarding health outcomes is not necessarily evidence of absence.

Thus, whilst it is likely that the costs information is fairly accurate, the benefits of the WHC pilot may be potentially underestimated.

7.3 OVERVIEW

A key part of the evaluation is a cost-benefit analysis (CBA) of the WHC pilot. CBA is a standard framework for the evaluation of government interventions.[2] Its purpose is to quantify the value of the benefits of a programme in order to assess whether these benefits outweigh the economic cost of the programme and, hence, whether the programme produces value for money (VFM). CBA analyses helps evaluators compare different programmes and choose the most effective ones.

CBA can be conducted before a programme is introduced (*ex ante* evaluation) or when the programme is underway (*ex post* evaluation). These approaches can be combined by running a pilot programme in some designated areas (as is the case for the WHC) before a decision is made whether to roll out the programme nationally. CBA could then be used to inform this decision.

The estimated net benefits of the WHC pilot are minus £11 million[3]. This measure includes all costs of the programme (costs of provision and employers' costs) and all benefits (both current and future).

7.4 GENERAL METHODOLOGY

Conducting a robust CBA requires all relevant costs and benefits to be taken into account. This can be achieved through the following three stages:

- Defining the counterfactual – i.e. identifying the outcome that would have prevailed, had the programme not been implemented.
- Identifying all relevant costs and benefits.

---

[1] *This is an assumption underlying a number of current HSE initiatives, such as Moving Goods Safely and work within the construction industry using a supply chain model to bring together different stakeholders to reduce levels of risk associated with different procedures or practices.*

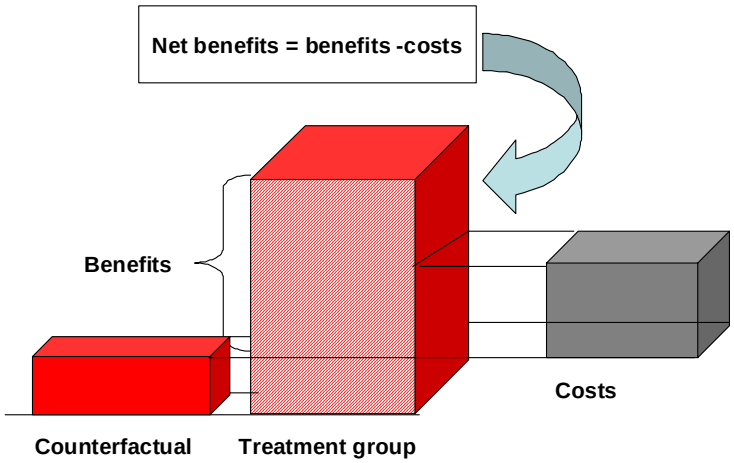
[2] *The HM Treasury Green Book.*

[3] *Because of the treatment of VAT noted above the net loss is greater than it would be with all VAT excluded.*

- Measuring these costs and benefits and estimating net benefits (i.e. benefits minus costs).

Figure 7.1 provides a stylised illustration of a CBA, with its three main elements – the counterfactual, benefits and costs.

Figure 7.1: An illustration of CBA



Source: Frontier Economics

7.4.1 Defining the counterfactual

A counterfactual can be defined as 'the outcomes that would have occurred if the new programme had not been introduced'.[1] It is necessary to define the counterfactual to identify the additionality of any programme (i.e. whether it works). In this case, the relevant counterfactual is what outcome would have occurred if the WHC pilot had not been implemented. Once a counterfactual has been identified, it is then possible to compare it with what is observed amongst the group receiving a WHC workplace visit in order to form a view of the costs and benefits associated with this service.

In order to define the counterfactual, data is analysed on employers operating in regions where the WHC workplace visit service was not provided. These employers are the comparator group for WHC pilot users. Organisations in areas where WHC pathfinders were not in operation were selected for participation in the impact survey on the basis that they were similar (in terms of their size and sector) to those participating in the WHC pilot. Their outcomes therefore constitute the best available estimate of the counterfactual. This comparator group are assessed to determine whether they experienced any changes in outcomes (e.g. the number of injuries and sick days). It is then possible to assume that similar changes would have prevailed in the WHC pilot user group, had the WHC pilot not been implemented.

Ideally, similar information on counterfactual costs would be available, i.e. how much would have been spent on health and safety measures in the absence of the WHC pilot. That would help us understand whether the WHC pilot costs are 'additional' (over and above what is typically spent by SMEs). This would require information on the comparator firm's health

[1] *For further information, see Purdon, S. (2002)* Estimating the impact of labour market programmes*, London, Department for Work and Pensions.*

and safety spending. In the absence of this information, an assumption was made that all spending related to the WHC pilot was additional. In fact, rather than additional spend, using the WHC pilot could have simply accelerated employer spending.

Estimates from other sources vary in terms of the average amount that employers spend on health and safety as part of their regular business activities. A recent estimate puts the costs of compliance with health and safety regulations at around £350 per year, per organisation[1], although this estimate includes organisations of all sizes. Another source[2] places the average employer spending on health and safety at £4,136 (although this figure is obtained from the five relatively high risk sectors of agriculture, construction, transport, health and manufacturing). It is therefore difficult to determine accurately what proportion of employer spend reported here could be attributed to compliance costs (i.e. costs that employers would incur as part of their day-to-day business activity), and which are due the additional demands placed on businesses as a result of their involvement with the WHC pilot. The available data from other sources, therefore, does not help to construct a useful counterfactual position on employer spending to overcome the limitations of this evaluation.

7.4.2 Identifying the relevant costs and benefits

It is important to identify and take into account all the costs and benefits associated with the WHC pilot, and these are outlined in this section. The monetary values of these costs and benefits are presented in the following sections.

Costs

The costs of providing the WHC pilot fall mainly on the HSE (government/taxpayers) and the participating organisations. They arise because the HSE paid for the provision of the WHC pilot. In addition, employers incur costs because participating organisations need to invest staff time in contacting the WHC pilot, taking part in a visit and implementing the proposed changes. These organisations might also incur some monetary costs (e.g. buying recommended equipment).

The costs of providing the WHC pilot included:

- The costs of the workplace visit service – the costs of the five regional pathfinders; initial set-up costs (i.e. administration, recruitment and training costs); and the ongoing running costs (i.e. staff costs, travel expenses, the costs of IT and outreach).
- Adviceline costs – initial set-up and ongoing costs.
- Centralised marketing activities (raising brand awareness, direct marketing, PR, merchandise and advertising).
- Project Management Contractor's (PMC) costs involved in managing the regional pathfinders and ensuring service delivery met the quality and operational standards set for all pilot activities.

---

[1] *Better Regulation Executive (2008),* Improving Outcomes from Health and Safety, *London, BERR, based on figures taken from the HSE's Administrative Burden Exercise, 2005.*

[2] *Lancaster, R., Ward, R., Talbot, P. and Brazier, A. (2003)* Costs of compliance with health and safety regulations in SMEs*, HSE.*

Costs incurred by the participating organisations could involve:

- staff time spent organising a workplace visit
- staff time spent with WHC advisers during the visit(s)
- costs (both monetary and staff time) involved in implementing the recommendations made by WHC advisers (e.g. purchasing recommended equipment or sending staff on training).

However, when considering employer costs, it should be noted that the evaluation data does not take account of what costs might have been incurred in the general course of business, without involvement in the WHC pilot. The available information therefore does not allow the additional costs associated with WHC involvement to be accurately isolated.

Benefits

The main anticipated benefits of the WHC pilot are:

- a change in the number of injuries in organisations participating in the WHC pilot (compared to those in the comparator group)
- a change in the number of illnesses (or sick days) in organisations participating in the WHC pilot versus the comparator group.

If the number of injuries, for example, falls by ten per cent amongst WHC pilot users and by three per cent amongst the comparator group, the difference in outcomes between these two groups (i.e. seven per cent) could be attributed to the WHC pilot.

Overall, the benefits of the WHC pilot can be felt by:

- the employees who will enjoy better health and spend less time off sick
- the employers who will incur fewer costs in terms of sick payments, recruitment and administration costs
- society at large due to the savings made in the NHS costs, insurance payments, social security payments, etc.

7.4.3 Measuring the costs and benefits

After all costs and benefits are identified, they need to be expressed in the same units, preferably in monetary terms to allow the net benefits of the programme to be calculated.

The costs of the programme are relatively straightforward to measure, for the following reasons:

- The costs of provision are all expressed in monetary terms. HSE and provider account data describes how much was spent in the provision of the workplace visit service, adviceline, marketing and management of the WHC pilot in each year of operation.
- The costs to employers are estimated based on data from the main impact survey of WHC pilot users. These include costs of materials and services (expressed in £) and an opportunity cost of staff time. The latter is measured in hours, but can be converted into monetary terms using appropriate hourly wage estimates.

The benefits of the programme, however, are expressed in non-monetary terms (e.g. a reduction in the number of injuries and illnesses). Therefore, a monetary value has to be

placed on the injuries and illnesses prevented by the programme. The HSE uses the Economic Analysis Unit (EAU) Appraisal Values[62] to estimate the benefits of policies. These Appraisal Values measure the unit costs of three types of workplace accidents and ill-health: fatalities; non-fatal injury accidents; and cases of ill-health. Non-fatal injuries are further classified as: major injuries (absence over three months); other reportable injuries (absence over three days); and minor injuries (see Table 7.1).

In all cases the overall unit costs are divided into the following components:

- Human costs. These are based on Department for Transport estimates of an individual's willingness to pay (WTP) for a reduction in the risk of sustaining each injury type. The human cost of ill-health is calculated as a weighted average of the human costs of different cases of ill-health categorised by length of absence.
- Cost of lost output due to an accident or ill-health. This is taken as 'equal to the labour cost that is normally incurred in employing the absent worker'.
- Resource costs for a case of ill-health, which include administration, recruitment, and medical treatment.

This approach can be used for measuring the benefits of the WHC pilot in monetary terms.

Table 7.1: Economic Appraisal Unit appraisal values, 2006 (£)

	Human cost	Lost output	Resource costs	Total[63]
Fatality	991,200	520,700	900	1,500,000
Major injury	18,400	16,200	5,800	40,500
Other reportable injury	2,700	2,600	500	5,800
Minor injury	200	100	50	350
Average case of ill-health	6,700	2,700	800	10,100

Source: HSE

7.5 ESTIMATING COSTS

7.5.1 Costs of provision

The costs of providing the WHC pilot include: central marketing costs; the costs of running the adviceline; the costs of running the five regional pathfinders providing the workplace visits; and the costs of programme management. These costs are presented in Table 7.2.

The total amount spent on the WHC pilot, excluding the cost of the pilot evaluation, was £14.8 million in nominal terms or £15.5 million in constant (2008-09) prices. The workplace visit service comprises 61.2 per cent of all costs, marketing 17.8 per cent and the adviceline 5.5 per cent.

---

[62] *'EAU appraisal values', HSE, www.hse.gov.uk/economics/eauappraisal.htm.*

[63] *Totals may not equal the sum of cost categories due to rounding.*

Table 7.2: Costs of provision (£)[64]

	2005–06	2006–07	2007–08	2008-09	Total (nominal)	Total (2008 prices)
Centralised marketing	1,379,106	731,219	519,696	0	**2,630,021**	**2,801,854**
Adviceline	202,921	355,517	257,004	0	**815,443**	**858,872**
Level 2 service	967,588	3,677,378	4,395,702	0	**9,040,668**	**9,436,401**
Programme mngmnt (PMC)	490,277	722,689	652,016	73,279	**1,938,261**	**2,036,505**
Miscellaneous and roll-out	268,295	53,278	14,784	3,510	**339,867**	**366,240**
Total[65]	**3,308,187**	**5,540,081**	**5,839,202**	**76,789**	**14,764,260**	**15,499,872**

Source: WHC financial accounts compiled by HSE and pathfinder returns

7.5.2 Costs to employers

Two data sources exist providing information about employer costs:

- Information from the second wave of the impact survey. Employers were asked to estimate how much time they and other staff had spent, and how much money they had spent, making changes as a result of their involvement with the WHC pilot over the past year.
- A separate, paper-based, *Estimating Costs to Business survey*. This asked employers to note down time and money spent on making changes in the four to six weeks after their second workplace visit.

A full description of the methods used in both surveys is provided in Chapter 2, Sections 2.4 and 2.7.

Whilst the *Estimating Costs to Business survey* provides a more detailed breakdown of employer costs, it is unlikely that this survey presents a representative picture of WHC pilot user spending. This is because: only those receiving a second visit could take part, it is based on only 184 responses, and it is time limited. The results of this survey do offer some insights into what sorts of activities and purchases employers spend the most time and money on, but this is supplementary information to that required for the CBA. Appendix 3 presents the results of the *Estimating Costs to Business survey* which demonstrate that the components resulting in the greatest time investment were conducting risk assessments and making changes to health and safety processes. The most common purchases were: training; some form of testing or certification; and upgrading site facilities. Very few employers had used, or planned to use, health professionals or health specialists.

The results from the impact survey are therefore used as the basis for the CBA in this chapter. All users were asked how much time they had spent interacting with the WHC pilot, as these

[64] *Costs of provision include some VAT. It is conventional in social cost benefit analysis to exclude transfers payments such as VAT. However as the exact level of VAT was not identified for this evaluation, this results in the total cost of provision being greater than it would be with all VAT excluded*

[65] *These costs do not include the cost of the evaluation of the pilot; the total cost of the pilot including evaluation was £16,638,380*

costs applied to everyone. Subsequently, the 406 users of the pilot who stated that they had made changes as a result of their involvement in the WHC pilot were asked how much making these changes had cost them (in terms of management hours, time by other employees and purchases made). In estimating the total costs of involvement in the WHC pilot, it is important to include those employers who did not feel that they had made changes, and therefore incurred costs related to participation in the WHC pilot in the calculation; otherwise the total costs to business are overestimated. Therefore, employers who had not made changes have been allocated a zero spend in relation to management time, other staff time and purchasing made to effect changes related to the WHC pilot.

The results are presented in Table 7.3 to 7.6. As these tables show, the amount of time spent interacting with the WHC pilot is fairly similar across organisations of different sizes, although time spent making changes increases with organisation size. A similar increase is observed in relation to actual purchasing costs using median costs[66] by size.

A similar set of tables is provided (in Appendix 1, Tables A1.7 to A1.11) for the 406 employers who stated that they had made changes as a result of their involvement in the WHC pilot. This provides an indication of how much the types of changes recommended by the WHC pilot cost employers. Overall, the costs to employers of making changes (excluding contact time with the WHC pilot) were £2,236.

These results show that users of the WHC pilot spent an average of £1,051, and 30.2 hours of staff time (18.3 management hours and 11.9 hours of employees' time) interacting with and making changes as a result of the WHC pilot. Using the 2008 ASHE data on hourly pay[67] of managers and employees (£23.5 and £13.5 respectively), the opportunity cost of managers and employees' time is estimated at £589 per organisation. Therefore, the combined average cost per organisation is £1,640; while the aggregated cost for all 5,425 organisations participating in the WHC pilot is £8.9 million. Therefore, the costs to employers are comparable to the costs incurred by the HSE in running the visit service.

Table 7.3: Management hours spent interacting with the WHC pilot

Size of organisation	Mean (hrs)	Std. deviation (hrs)	Minimum (hrs)	Maximum (hrs)	Median (hrs)	Base (N)
5 to 9 employees	6.0	6.170	0.00	40.00	4.3	181
10 to 49 employees	6.6	6.518	0.00	40.00	4.3	225
50 to 249 employees	6.4	6.450	0.00	40.00	4.7	76
All	6.3	6.371	0.00	40.00	4.4	482

Base N=542 (all WHC adviceline users) Missing=60.

Source: IES/BMRB WHC evaluation survey of employers 2007/08

[66] *Although micro businesses had the highest mean costs (due to high outliers), they also had the greatest variation in their responses*

[67] *www.statistics.gov.uk/downloads/theme_labour/ASHE_2008/tab2_1a.xls.*

Table 7.4: Non-management hours spent interacting with the WHC pilot

Size of organisation	Mean (hrs)	Std. deviation (hrs)	Minimum (hrs)	Maximum (hrs)	Median (hrs)	Base (N)
5 to 9 employees	1.0	2.538	0.00	20.00	0.3	180
10 to 49 employees	2.0	7.502	0.00	80.00	0.4	223
50 to 249 employees	1.2	3.981	0.00	30.00	0.3	79
All	1.5	5.581	0.00	80.00	0.3	482

Base N=542 (all WHC adviceline users) Missing=60.

Source: IES/BMRB WHC evaluation survey of employers 2007/08

Table 7.5: Hours spent by management implementing changes following visit/s from the WHC pilot

Size of organisation	Mean (hrs)	Std. deviation (hrs)	Minimum (hrs)	Maximum (hrs)	Median (hrs)	Base (N)
5 to 9 employees	13.3	31.230	0.00	300	5.8	136
10 to 49 employees	20.0	46.647	0.00	500	11.2	176
50 to 249 employees	22.9	37.479	0.00	160	12.9	59
All	18.0	40.398	0.00	500	9.7	371

Base N=507 (organisations not making any changes are treated as zero spend), Missing=35.

Source: IES/BMRB WHC evaluation survey of employers 2007/08

Table 7.6: Hours spent by employees implementing changes following visit/s from the WHC pilot

Size of organisation	Mean (hrs)	Std. deviation (hrs)	Minimum (hrs)	Maximum (hrs)	Median (hrs)	Base (N)
5 to 9 employees	6.9	21.129	0.00	200	1.6	139
10 to 49 employees	13.1	34.273	0.00	303	4.1	178
50 to 249 employees	19.6	53.347	0.00	360	4.4	62
All	11.9	34.454	0.00	360	2.8	379

Base N=515 (organisations not making any changes are treated as zero spend), Missing=27.

Source: IES/BMRB WHC evaluation survey of employers 2007/08

Table 7.7: Amount of money spent to implement changes following involvement with the WHC pilot

Size of organisation	Mean (£)	Std. deviation (£)	Minimum (£)	Maximum (£)	Median (£)	Base (N)
5 to 9 employees	1,306	7,956.159	0.00	100,000	145	136
10 to 49 employees	894	3,603.304	0.00	50,000	277	172
50 to 249 employees	940	1,706.029	0.00	8,000	250	59
All	1,051	5,446.700	0.00	100,000	204	367

Base N=503 (organisations not making any changes are treated as zero spend), Missing=39.

Source: IES/BMRB WHC evaluation survey of employers 2007/08

7.5.3 Conclusions

The costs provided by HSE and service providers are likely to be an accurate estimate of the costs of setting up, marketing and running the service. The overall costs, excluding the cost of the pilot's evaluation, are estimated to be £15,499,872 at 2008-09 prices[68] over the full period required to implement the service.

The costs that employers estimate they have incurred are subject to two possible sources of inaccuracies. The first is that only average wage estimates have been used to determine the costs of spending time interacting with the WHC pilot and making changes as a result. The second is that employers may have included all actions taken on health and safety in their estimates rather than isolating the costs directly associated with their involvement in the WHC pilot. Thus, they may be overestimating the additional costs of implementing recommendations given during the WHC piloting.

In conclusion, therefore, the provider costs of the service are likely to be more accurate than the estimates of employer costs; this should be considered when interpreting the results of the cost-benefit analysis presented later in the chapter.

7.6 ESTIMATING BENEFITS

Assessing the benefits of the WHC pilot, or any other similar programme, is notoriously difficult because the data available to evaluators tends to be less than perfect. In this case, the difficulties include:

- Incomplete or inaccurate data from employers on their absence and accident rates due to poor recording systems. The available data on these outcomes, therefore, for some employers will represent a 'best guess', rather than an accurate assessment. Given this imprecision in the data, it is difficult to measure the counterfactual and the benefits accurately.

[68] *Costs of provision include some VAT. It is conventional in social cost benefit analysis to exclude transfers payments such as VAT. However as the exact level of VAT was not identified for this evaluation, this results in the total cost of provision being greater than it would be with all VAT excluded*

- The presence of 'unobservable factors' which are likely to affect the success of the programme but which are difficult or impossible to measure (e.g. employers' culture or ethos).
- The potential difficulty in isolating the effects of better recording systems from improvements to practice. Having better records can mean that, in the short term, estimates of accidents and ill-health can rise due to enhanced accuracy levels within employers about the scale of the problem within their business. This can occur even when accompanied by improved procedures that in themselves could lead to reductions to actual rates of illness and injury.

The analysis of benefits relies on econometric techniques (discussed in detail in Chapter 5) and take into account as many factors that might have an impact on the final outcomes as possible (e.g. employers size, sector, region, etc.). Estimates of the benefits of the WHC pilot are based on a comparison of 520 users of the WHC workplace visit service (the WHC user group) with 1,609 organisations outside the WHC area (the comparator group).

Two types of potential final outcomes are estimated – the impact on injuries and the impact on ill-health. The former is measured as a change in the number of workers who experience injuries. The latter is assessed based on three different indicators:

- number of workers who have taken sick leave
- number of sick days taken by workers
- number of workers affected by illness made worse by work.

7.6.1 The impact on injuries

The first stage is to assess the impact of the WHC pilot on general indicators of best practice (intermediate outputs), such as accurate recording of injuries and illnesses, regular risk assessment, health and safety training, etc. As stated in Section 5.6, involvement in the WHC pilot makes organisations more likely to:

- have in place formal centralised systems for recording injuries and absences
- regularly undertake risk assessment
- have risk assessment undertaken by staff with formal training
- provide or pay for health and safety training for employees.

The next stage is to examine how these indicators of best practice affect the number of injuries experienced by employees. This analysis includes only those organisations that had formal systems in place for recording injuries and absence before and after their involvement with the WHC.[1] For these employers, involvement with the WHC pilot reduces the probability of an injury by 0.54 percentage points. This is equivalent to 773 injuries averted annually.[2] The average cost of an injury is £2,746[1], using EAU estimates. Therefore, the

---

[1] *We have to exclude other organisations from the analysis as information on final outcomes for them is unreliable. Appendix 2 provides more detail on which employers were excluded from the calculation of benefits and why.*

[2] *This is calculated as 5,425 organisations * 26.4 (average number of employees per organisation) * 0.54 per cent (reduction in the probability of an injury) = 773.*

benefits of reducing the probability of work-place injuries are estimated to be £3.8 million (in 2008-09 prices) over the two-year period of the WHC pilot's operation.[2]

7.6.2 The impact on ill-health

Similarly, the effects of the intermediate outputs are assessed on various measures of ill-health. The effects are not statistically significant (as discussed in Chapter 5).

This does not necessarily mean that the WHC pilot has no affect on worker health, as there are a number of problems with the available data which could prevent the full impact of the WHC pilot becoming apparent. More specifically:

- The available measure of work-related ill-health ('the number of workers affected by illness made worse by work') is not perfect. Only 40 per cent of the sample responded to this question. This makes it difficult to assess the impact on this aspect of ill-health.
- It may be difficult to detect the impact of the WHC pilot on general measures of ill-health (the number of people taking sick leave and the number of sick days) as some illnesses are not work related and, therefore, are not affected by health and safety measures (e.g. colds). Alternatively, the effects of improved health and safety at work may take time to lead to improved health outcomes, and longer than the measurement period for this evaluation.
- Finally, as organisations improve their recording systems based on recommendations from the WHC pilot, the number of *recorded* illnesses and sick days may actually rise in the short-term. This evaluation observes effects for one year following interaction with the WHC pilot. It is therefore possible that the data has picked up recording effects than any underlying trends in the prevalence of ill-health.

7.6.3 Benefits used in the CBA

To summarise, the measurable benefits of the WHC pilot are estimated to be £3.8 million over the two-year period. These benefits reflect a reduction in the probability of work place injuries by 0.54 percentage points (this is equivalent to 773 injuries averted annually). For the surveyed firms the average probability of a worker being injured is 8.2 per cent[3]; therefore the benefit corresponds to a 6.59 per cent reduction in the probability of injury. As there is no statistically significant effect of the WHC pilot on the measures of general ill-health or work-related ill-health, any benefits accrued in these areas are therefore not included in this estimate of benefits.

---

[1] *This is the weighted average cost of injuries based on the EAU Appraisal Values. The weights are as follows: three per cent major injuries, 18 per cent – injuries with absence over three days and 79 per cent – minor injuries (based on the LFS, 2006 data).*

[2] *In our calculations, we take into account the fact that 93 per cent of organisations had their first Level 2 visit in the first year of operation of the WHC programme and, therefore, enjoyed two years of benefits, while seven per cent of organisations had their first visit in the second year of the programme's operation and, therefore, enjoyed one year of benefits.*

[3] *Note that the estimated injury reduction, and the 8.2% injury rate for surveyed firms refers to* ***all*** *injuries, both major and minor. This injury mix is reflected in the weightings used to calculate the average injury cost. By contrast, the injury rate definition employed by the HSE (derived from the LFS) is much lower at around 1%, mainly because it does not include minor injuries.*

7.6.4 Conclusions

The benefits of the WHC pilot are based solely on the benefits which can be assigned economic values. These in turn are based only on benefits measured through the impact survey, which are related to reductions in accidents only. It is likely therefore that the main measurable benefits of the programme came about through the provision of advice on safety issues. The primary focus of the WHC pilot was actually providing advice leading to improvements on workplace health which have not (or not yet) been realised. However, the OHSR work model being piloted within the WHC pilot framework does include advice on risk reduction processes and interpretation of health and safety law within its remit.

There may be other benefits which employers experience, but which have not been measured by the survey. The impact survey took place over a one-year period. Therefore, it is possible that health benefits may accrue over a longer period than covered by the evaluation. The conclusion about the estimated benefits is therefore that they may be an underestimate due to measurement difficulties.

7.7 COST-BENEFIT ANALYSIS

In this final section, the estimates of the benefits of involvement in the WHC pilot and the costs of providing the service are used to calculate the net benefits of the WHC pilot.

The costs and benefits of the WHC pilot are presented in Table 7.8:

- The costs include all provision[1] [2] and employers' costs.
- Benefits are measured over the two-year period (2006/07 and 2007/08).

It is worth noting that, while we take into account all costs of provision (including the workplace visit service, the adviceline, marketing and PMC costs), the benefits only include those of the workplace visit service. Ideally, we would also like to take into account the benefits of the adviceline. This, however, was not possible, given that the adviceline had been set up nationally with no appropriate counterfactual to assess its impact.

The net benefits are negative and estimated to be -£20.6 million.

Table 7.8: CBA analysis (in 2008-09 prices)

CBA	Costs £	Benefits (over 2 years) £	Net benefits £
All provision costs and employer costs	24.4 million	3.8 million	-20.6 million

Source: Frontier Economics analysis of IES/BMRB surveys of WHC users and comparator group, 2006/07 and 2007/08

[1] *Costs of provision include some VAT. It is conventional in social cost benefit analysis to exclude transfers payments such as VAT. However as the exact level of VAT was not identified for this evaluation, this results in the total cost of provision being greater than it would be with all VAT excluded.*

[2] *These costs do not include the cost of the evaluation of the pilot; the total cost of the pilot including evaluation was £16,638,380*

This version of CBA may potentially underestimate the benefits of the programme. This is because the benefits are only measured over the two-year period of the WHC pilot's operation. It is possible that the benefits of the WHC pilot could last longer than two years and 'depreciate' only gradually. Indeed, after the changes recommended by the WHC pilot have been implemented (e.g. staff received appropriate health and safety training, recording systems have been introduced, etc.), it might be expected that these changes would have a lasting impact. This is similar, to some extent, to the impact of educational qualifications on individuals' earnings. Costs are incurred up-front (in the form of tuition fees and time spent studying) in order to enjoy benefits later (in the form of higher wages). Measuring wage uplifts for one year only immediately after graduation would not provide the full picture as the benefits of education would also accrue in the future (even if no additional investment in education is made). Therefore, it seems to be appropriate to extend the benefits into the future periods, with appropriate discounting[76] and depreciation.

No research could be identified which specifically examined the depreciation of health and training, but there is a considerable body of literature on depreciation of human capital (knowledge) in general. Groot[77] (1998) uses the British Household Panel Survey (BHPS) and estimates the rate of depreciation of education to be 11–17 per cent. We use the central estimate of 14 per cent. The depreciation of benefits over time[78] is illustrated in Table 7.9. Five years after the training, for example, the benefits are expected to be only half of what they were immediately after the training.

Table 7.9: Depreciation of benefits

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Benefits	100%	86%	73%	64%	55%	47%

Source: Frontier Economics

We calculate the net present value of benefits over 20-year period. However, given the depreciation rate of 14 per cent, the benefits 10 years after the intervention become small.

When these future benefits are taken into account, the value of aggregated benefits increases to £13.4 million.[79] The net benefits in this case become -£11 million[80]. This estimate, in our view, better reflects the benefits of the WHC pilot.

---

[76] *We use the discount rate of 1.5 per cent as it is standard practice for the HSE when measuring health and safety benefits. This is different to the 3.5 per cent discount rate usually recommended by the HM Treasury Green book because utility from health is assumed not to be affected by consumption growth, which accounts for 2 percentage points of the conventional 3.5 discount rate.*

[77] *Groot, W. (1998) 'Empirical estimates of the rate of depreciation of education',* Applied Economics Letters*, 5, pp.535–538.*

[78] *This table is presented as an illustration only. In fact, benefits fully depreciate over 20 years, but their effect after ten years is small because of the discounting.*

[79] *These are calculated as net present value of current and future benefits, depreciated and discounted over 20 years.*

[80] *Because of the treatment of VAT noted above the net loss is greater than it would be with all VAT excluded.*

Table 7.10: CBA analysis – current and future benefits (in 2008 prices)

CBA	Costs [81]£	Benefits £	Net benefits[82] £
All costs of provision and employer costs	24.4 million	13.4 million	-11 million

Source: Frontier Economics analysis of IES/BMRB surveys of WHC users and comparator group, 2006/07 and 2007/08

7.7.1 Conclusions

There are a number of ways in which the cost-benefit analysis can be undertaken. Each of these results in a different estimate of the overall benefit. The most accurate assessment is likely to put the net benefits at -£11 million. It should be noted that this analysis takes account of not only the costs of provision, but also the costs to employers in producing these results.

Given the data limitations, it is difficult to assess whether these benefits are additional or whether they simply represent an acceleration of investment in health and safety, i.e. something that the companies what have done themselves in due course. In order to assess this effect, we would need to analyse data over time (over 5–10 years), both for the treatment and the control group. That would provide us with information on the patterns of investment in health and safety, and whether the WHC pilot has merely brought these investments forward. Collecting such data is, clearly, very resource intensive.

7.8 SENSITIVITY ANALYSIS

It is also good practice to examine how sensitive the results of the CBA are to changes in assumptions/underlying estimates. While some elements of the analysis can be measured directly (e.g. costs of the adviceline service), other elements either involve complex estimations (e.g. benefits of the programme) or rely on outside data sources (e.g. depreciation rates). It is therefore necessary to assess how the results would change with a small (±10 per cent) change in these parameters. More specifically, a ±10 per cent change in:

- the number of injuries prevented
- depreciation of benefits.

Consideration is also given to how the results would change if the period over which the benefits of the WHC pilot accrue to the participating organisations was altered. The results are presented in Table 7.11. These demonstrate that:

- The central estimate of net benefits changes to between -£10.4 million and -£7.1 million.

[81] *Costs of provision include some VAT. It is conventional in social cost benefit analysis to exclude transfers payments such as VAT. However as the exact level of VAT was not identified for this evaluation, this results in the total cost of provision being greater than it would be with all VAT excluded*

[82] *Because of the treatment of VAT noted above the net loss is greater than it would be with all VAT excluded.*

- While the results, as one would expect, are sensitive to the changes in the assumptions/underlying estimates, none of these changes alter the main findings that the net benefits are found to be negative.

Table 7.11: Sensitivity analysis

	Central estimate	Alternative assumption	Central estimate
Reduction in the probability of an injury	0.54	0.49	-£9.5m
		0.59	-£7.1m
Depreciation of benefits over time	14%	12.5%	-£7.1m
		15.5%	-£9.3m
Benefits accrue over	20 years	10 years	-£10.4m
		15 years	-£9.0m

Source: Frontier Economics analysis of IES/BMRB surveys of WHC users and comparator group, 2006/07 and 2007/08

7.9 DISCUSSION OF RESULTS

Estimating the effect of a treatment (here the WHC pilot) on an outcome raises a range of difficult econometric issues. These include possible biases arising from: the control variables included or omitted endogeneity, measurement error, sample selection, and the nature of the counterfactual (e.g. the hypothetical effect of treatment on the non-treated). The appropriate response to these issues remains controversial within the statistical literature and requires the application of professional judgement. Throughout the analysis, attempts have been made to be explicit about where and how professional judgements have been applied.

8 CONCLUSIONS

This is an evaluation of a pilot initiative which was designed with evaluation in mind. The pilot set out to test a delivery model and the processes of delivery to its target audience. It also sought to better understand SME reactions to a service of this kind, and produce a set of learning points which could be used in the design of any future activities. The conclusions therefore fall into three main categories:

1. Did the service being piloted deliver what it was intended to?
2. How did the delivery model work in practice and what implications does this have?
3. What can be learnt from the experience of the WHC pilot, and by whom?

8.1 DID THE WHC PILOT DO WHAT IT SET OUT TO DO?

8.1.1 Meeting original service goals

The WHC pilot was set seven goals. Performance against each of these goals is discussed below.

1. **Establish a service with the potential to significantly increase the level of healthy workplaces within small and medium sized businesses across England and Wales**

   Qualified advisers, with the ability to discuss and deal with workplace health issues were able to access SMEs, engage them and influence them. SMEs using the service felt that they had changed their approaches to health and safety as a result of adviser inputs, and there was a measurable impact of WHC on a range of health and safety indicators (i.e. record keeping, staff training and risk assessment). So whilst this goal was largely achieved in terms of the service having the *potential* to affect workplace health, it actually had a greater impact on workplace safety.

2. **Provide workplace health support for employers and workers who do not currently benefit from such support**

   Users of the WHC pilot did not, on the whole, have existing access to workplace health support. The strict inclusion criteria applied to the workplace visit service meant that SMEs, and the smaller end of the SME spectrum, were its primary beneficiaries. Less than 15 per cent of these employers appear to have used occupational health professionals in the past year. Most employers would have relied on the Internet or their own common sense to make improvements in the absence of WHC rather than actively seeking out assistance from outside their organisation. Thus the support they received from WHC was higher quality than they would otherwise have had. The WHC visit service also delivered services to its target audience, although the telephone service did not reach as large a number of its target audience as anticipated.

3. **Develop innovative partnerships that deliver a consistent service to all customers**

   The pilot brought together a range of different providers operating a number of different regional marketing strategies and using different organisational structures. Tight project management by the HSE (partly through a dedicated project management contractor) ensured that quality standards for the service were adhered to, and a clear identity for the service established. As a result, users were highly satisfied with the quality of support that they received and extremely positive about all aspects of the service.

4. **Improve small and medium sized businesses' understanding of workplace health issues and the benefits of sickness absence and return-to-work procedures**

   Advisers consistently discussed workplace health issues whilst on site with SMEs. A variety of tools and training materials were also left on site for use by employers after contact with WHC advisers had ceased. Thus, the capacity of participating businesses to take preventative action on, and their knowledge and skills in, the area of health and safety management do appear to have improved (as evidenced by case study work and the experiences of advisers). However, the specific goal was to tackle workplace health issues and it is not clear that the WHC pilot was successful in promoting understanding of the benefits of sickness absence and return-to-work procedures. SMEs do not appear to connect with these issues unless they have an active or ongoing problem (e.g. a 'live' case of long-term sickness absence).

5. **Provide small and medium sized businesses with the knowledge and skills to resolve workplace health, safety and return-to-work challenges**

   Where SMEs using the service were experiencing a problem with sickness absence, the service was well placed to support them (e.g. cases where staff were off sick with a mental health issue), although the numbers involved were relatively small. WHC use also had a significant impact on the quality of sickness absence recording systems; therefore users could well be better placed to identify any absence problems in the future. Evidence from the qualitative work suggests that at least some users feel more confident and skilled after using WHC. However, whether they feel more skilled in dealing with workplace health and return-to-work challenges is not clear, given their primary interest in workplace safety. Employers may now, however, be better placed to know where to go to access support if future problems arise.

6. **Deliver, at a minimum, the basic principles of the problem-solving service, so that employers can resolve current and future issues themselves**

   The WHC model was based very much on helping employers to problem-solve and supporting them in doing so. It is difficult for this evaluation to state whether the changes will be sustained over time, and whether there is now actually a greater ability amongst employers to resolve future issues. However, the main impacts of the service were about achieving better monitoring, risk assessment and staff training. Therefore it seems likely that in terms of health and safety, employers using the pilot are now better placed to spot and act on any future issues.

7. **Change employer and worker behaviours so that, ultimately, preventative measures are put in place to avoid unnecessary workplace health issues**

   The evaluation was limited, in the main, to observations regarding manager behaviour, and manager perceptions of worker behaviour. In some case studies, however, employers did discuss how their workers were now more involved in health and safety issues. The more robust evidence available on the impact of the pilot demonstrates that better recording and monitoring, leading to reduced injury rates, have been achieved. Whether these improved systems will prevent future workplace health issues occurring is unclear.

Summary

In attempting to prevent a case of ill-health within an SME, the service was actually dealing with a rare occurrence within an individual organisation. SMEs generally did not feel that they had problems with sickness absence, and were more concerned with ensuring that they met their legal obligations with regard to health and safety legislation. Where employers

approached the WHC with a specific sickness absence problem, the service was well placed to provide high level support.

The service more commonly, however, provided fairly basic help with generic health and safety issues and specifically writing policies and conducting risk assessments. There are other, existing, sources of support on offer to SMEs in this area (e.g. HSE provides example risk assessments), but the SMEs involved with WHC tended to value the personal support they received in navigating through the available information.

There were, therefore, major challenges inherent in promoting occupational health messages within SMEs. Over and above the implications of this for a specific service such as WHC, there is a more general challenge to raise the priority of OH amongst employers.

The extent to which provision of the service prompted actions which would not have occurred in the absence of the service is not entirely clear, as it is possible that use of WHC simply accelerated actions that would have occurred in time via other sources of support or in the absence of any support. Without extended monitoring of the comparator group (essentially to determine the extent to which they 'catch up' with WHC users over time), however, it is not possible to isolate this.

8.1.2 How appropriate were the service goals?

Another question is to what extent the service goals were appropriate.

Do the goals accurately reflect what was delivered? Advisers actually spent most of their time dealing with generic health and safety rather than occupational health, so health-related goals were always going to be challenging, given the way that the service operated in practice.

Were the goals measurable? Most were, but the evaluation was not designed to address the issue of sustainability, and would need to run for a longer period of time to do so.

Could the goals have been more directly relevant to the service? Given that the service acts first to change procedures, and it is through this that final outcomes would be observed, the goals could have included more of a focus on this intermediate stage and how this in turn would lead to improved final outcomes.

8.1.3 Did the evaluation meet its objectives?

WHC was a complex service in delivery terms, and involved a multi-faceted evaluation. The evaluation successfully examined the processes of delivery of both the adviceline and the visit service. In addition, a comprehensive impact assessment of the visit service was achieved. The low user numbers for the adviceline meant that an impact assessment, and therefore cost-benefit assessment, of this aspect of the pilot was not possible.

The evaluation faced a number of other challenges, the most important of which were:

- recording issues amongst SMEs as they do not have accurate information on their absence and accident rates
- difficulties in isolating the effects of improved recording systems from improved behaviours
- insufficient time to fully track health outcomes

- using a survey approach to data collection and therefore reliance on accurate and honest responses, which are not always guaranteed.

These problems are not limited to this evaluation, and exist throughout the literature about workplace health interventions[83], but need to be taken into account when designing future evaluations of any similar initiatives (e.g. the DWP's planned Occupational Health Helpline for SMEs).

One specific learning point from this evaluation is the way that employer costs were treated. In future, it would be useful to isolate the costs associated with achieving and maintaining legal compliance from the costs of going beyond this, for example, taking forward adviser recommendations on workplace health. It may be that once a business is compliant with generic health and safety legislation, the actual additional costs of adopting best practice may not be that significant. This would be a useful question for any future research to answer. In this case, as employer costs make up a large proportion of the total costs associated with the service, a more precise examination of employer spending on health and safety would help to assess how much of employer spending on WHC is over and above what they would have spent anyway.

8.2 HOW DID THE DELIVERY OF WHC WORK IN PRACTICE?

8.2.1 The adviceline

The overall number of calls taken by the adviceline was lower than anticipated. However, the original estimates were based on how other services had operated (principally a Scotland-wide initiative), and no consideration was given to how the lack of a specific marketing element for the adviceline might affect take up.

It is difficult for the evaluation to determine whether the marketing strategy, or a lack of demand from SMEs, is at the heart of the low uptake. A contributing factor to the low levels of advice provided over the telephone is likely to be the offer of a workplace visit. Where employers were eligible for a visit, they almost all preferred to wait to see an adviser rather than have a discussion over the telephone. It is not clear-cut that all employers would necessarily prefer a workplace visit over telephone support, but the way in which the service operated means that it is difficult to disentangle employer preferences. The demand for face-to-face support appears greater than for telephone advice. In the absence of the offer of a workplace visit, it is unclear whether employers approached directly via telemarketing would still have got involved in the WHC pilot. However, the relatively small number of employers actively searching for support who found the service for themselves (mainly through online marketing), and who were ineligible for a workplace visit, did ask for and receive telephone support. A telephone-only support model will need to be trialled before clearer answers are available.

Only a relatively small proportion of calls resulted in the provision of in-depth telephone advice. Even amongst this group of callers, the demand for in-depth advice about workplace health issues was limited. Employers were more concerned with getting advice on generic health and safety matters. However, the service was 'sold' to employers on the basis of helping them with health and safety rather than workplace health, affecting their view of

---

[83] *See Hill, D., Lucy, D., Tyers, C. and James, L. (2007,* What Works at Work*, London, Department for Work and Pensions. This review of literature concludes that there are major gaps in the evidence due, in part, to the difficulties in measuring workplace health outcomes.*

what the service provided. Another point is that it is actually difficult to distinguish some health issues from safety issues (e.g. manual handling which is actually about both) such that the administrative records may actually underestimate the scale of health-related calls taken.

Much of the work of the adviceline was actually about acting as an administrative handover point, providing a bridge between telemarketers and the regional pathfinders. Therefore, highly qualified advisers (who were qualified to the same level as advisers offering the workplace visit service) were under-utilised, spending much of their time on administrative tasks which could have been undertaken by less costly staff.

This reliance on telemarketing had a number of other implications. Having just been 'cold called', these employers were unlikely to have had a current workplace health issue with which they needed immediate assistance. They may also have been unprepared to discuss any issues they had at the time of the telemarketing call, and preferred to take time to think things through before a visit.

It is also worth asking whether it is realistic to expect SMEs operating fairly basic health and safety systems, to identify that they have a workplace health issue. The WHC model assumes that SMEs will need help to understand the benefits of sickness absence and return-to-work procedures. SMEs may therefore underestimate the impact of workplace health issues, so they may well have issues that they are unaware of. Assuming that this type of business does not require support with workplace health issues because they do not seek it out could be, therefore, misguided.

Three key questions about the adviceline remain unresolved following this evaluation:

- What is the actual scale of the demand for this type of service if it was specifically marketed?
- How can employers be encouraged to tackle workplace health (rather than safety) issues by telephone advisers? This may require a concerted information/consultation approach aimed at raising the profile of health issues before a service such as WHC can be effective.
- What would the impact of such a service be, and how should/could this be measured?

Future initiatives, such as the occupational health helpline for SMEs which the government is committed to trialling, will be able to better inform our understanding of how employers react to a telephone only support model.

8.2.2 The visit service

The workplace visit service delivered its target numbers, and was well received by employers who clearly appreciated having someone talk through their specific issues. This aspect of the pilot was therefore very popular amongst SMEs. As a result of this responsiveness to SME interests, however, much of the advice provided on workplace visits was about fairly basic health and safety systems. For SMEs, achieving compliance with health and safety regulations is an overriding concern. Workplace health is seen very much as a secondary issue.

An important question is therefore how can a balance be achieved between what SMEs want (help with compliance issues) and what government thinks they need (support to formulate more developed approaches to workplace health). If a service is unattractive to SMEs because it deals with issues that they do not identify with, then demand will be low. In order to effect real change, however, giving SMEs what they want may fall short. WHC attempted

to straddle this difficult divide, by offering tailored support, but with a health message. What seems clear, however, is that when SMEs are allowed to set the agenda, they will overwhelmingly do so in the direction of safety rather than health.

Another issue is whether the relatively basic level of support requested by SMEs warrants the use of an intensive, visit based, model, or a service staffed by such highly qualified advisers. The issues that advisers dealt with, in practice, rarely challenged them. In any future service design, therefore, it would be worth considering how best to staff any visit service. At least some advisers could be less highly qualified in health and safety, acting as a first line contact for SMEs, but able to draw on or refer to more highly qualified advisers as necessary. An alternative model could more fully involve third parties for specialist support, and employers could be asked to make more of a contribution to covering the costs of the service as a result.

The qualitative work with employers revealed how important it was that advisers had existing experience of working with businesses. This allowed them to understand the business context into which they were taking workplace health and safety messages. In addition, soft skills were required to ensure that health topics could be introduced even when employers did not see the direct relevance to their business at the time. It therefore seems more important for SMEs to have advice from someone they can relate to (and vice versa), than to have access to highly technical specialists, at least in the first instance.

8.2.3 Impact of the visit service

Use of the WHC visit service is associated with improvements to a range of indicators of good health and safety practice, and through these a reduction to the accident rates amongst participating firms. A voluntary based, employer-led service did actively make a difference to what employers do, therefore. They responded to the service by making changes to their approach to health and safety and experienced improved workplace safety as a result.

What is less encouraging is the lack of measurable impact on health outcomes, given the strong focus on the service, in design terms, on workplace health. WHC was actually more focussed, in practice, on health and safety than on occupational health. So this is not actually that surprising.

Health outcomes are also notoriously difficult to measure, particularly within a limited time span. It is therefore not possible to say with certainty whether, or to what extent, insufficient or inaccurate data is responsible for the lack of impact on health outcomes (although the limitations of this evaluation have been clearly outlined throughout this report).

8.2.4 Cost effectiveness

The pilot was based on an intensive delivery model with a large investment made, proportionately, in working with each SME. The costs associated with running the WHC pilot (when combined with employer costs of getting involved) outweigh the measurable benefits of the provision. Much of the work of the pilot has been, in practice, to improve levels of compliance within SMEs (e.g. through the introduction of health and safety policies or risk assessments). In achieving its original aims of tackling workplace health issues, therefore, the service does not appear to have been cost-effective.

As WHC was a pilot initiative, many lessons have been learnt about ways to achieve greater cost effectiveness. Better value for money could therefore be achieved in any future initiatives by reducing:

- **staff costs** if a different staff mix was used in delivery (e.g. highly qualified/experienced advisers deployed only in cases where a less expensive member of staff is unable to deal with general queries, or the use of more administrative staff to man the adviceline)
- **marketing costs** through a more highly focussed marketing campaign picking up the most successful elements from the pilot (e.g. telemarketing and use of the Internet/HSE books) and dropping techniques proven to be less effective for SMEs (e.g. direct mailings).
- **set up and project management costs** which, for a fully operational service would be less, as many of the procedures necessary to run a national service have already been put together and refined as part of the pilot process
- **delivery costs** if a less intensive model of support was offered**.** The relatively day-to-day concerns and the degree of commonality across SME issues, in the main, could mean that a less expensive way of delivering messages and information could be just as appropriate, but more cost effective. Care must be taken, however, that the elements which made employers respond well to WHC are not entirely lost.

8.3 WHAT LEARNING POINTS CAN BE TAKEN FROM THE WHC PILOT?

WHC was run as a pilot initiative. Therefore a major part of its purpose was to inform the design and commissioning of other, later initiatives. It is particularly important, at this time, to highlight some of these lessons learnt, given the current policy interest in reaching SMEs as part of government commitment to meet many of the recommendations outlined in the Black[84] report. Some of the key learning points from this pilot are therefore highlighted below and they should have relevance for a range of audiences.

8.3.1 For providers and commissioners

For **providers and commissioners** considering running a complex advice service, the messages are that:

- It was possible for WHC to operate as a single service, with a clear identity, even though it was operated using different providers, due to a central approach to branding, quality control and service parameters.
- A multi-stranded service can have effective delivery processes and procedures. However, good planning is necessary to define precisely how the service should operate in advance. Training should also be given to managers and staff on how to deliver to the required standards and in the right manner, and good project management used throughout to ensure that guidelines are adhered to.
- High quality monitoring data to support a robust evaluation of processes can be collected across multiple providers, but this is best achieved using a single database for entering, recording and analysing data on service delivery and users. This must be accompanied by regular checks on both the completeness and quality of data entry. Tying service providers into this in their contracts is a good way to ensure high quality data collection.

---

[84] *For further details, see Department for Work and Pensions and Department of Health (2008)* Improving health and work: changing lives, The Government's Response to Dame Carol Black's Review of the health of Britain's working-age population, *London, TSO.*

- Staff may not all need to be highly trained, technical experts. All WHC advisers had a high level of industry and health and safety (or occupational health) knowledge and were highly qualified. However, SMEs had only basic and common problems in the main. It could therefore be possible to cut staff costs in any future initiatives by employing administrative as well as technical staff to deal with simple queries, referrals, or requests for information. A few highly qualified advisers could be called upon only in cases where their skills were needed.
- More use could be made of existing local providers to offer more specialist support, if employers can be persuaded to pay for these services.

8.3.2 Engaging with SMEs

Learning points about **engaging with SMEs** include:

- The service required extensive marketing to achieve its target numbers. Unless an SME has a specific and current problem, they are unlikely to be seeking out support with health or even health and safety.
- The most successful marketing methods in terms of driving up user numbers were ones which actively targeted SMEs (e.g. telemarketing and local outreach) rather than methods which relied on SMEs taking the initiative (e.g. direct mail).
- Employers with a live issue are more likely to proactively respond, and Internet-based advertising seems to be a good way to pick up SMEs who are already looking for information or advice.
- Regional outreach attempts were as effective as central telemarketing in generating interest in the service. Word of mouth referrals, for example, were an important and low-cost entry point to the service, but this type of response takes time to establish.
- Different service delivery models (e.g. not a regional service, less challenging targets, not offering a face to face service) could use a different marketing approach. It is important for any future services to either be available and visible to employers at the point when they want help, or reach out to employers not actively seeking help, or both.
- It will be necessary to more actively market to micro-businesses than to those at the larger end of the SME spectrum who tend to be more proactive in seeking assistance and better informed about where to get it.
- SMEs struggle to navigate existing sources of information. There are existing initiatives which could have the potential to deal with many of their requirements (e.g. HSE infoline and website). However, SMEs find the task overwhelming and confusing. They also lack the confidence to move forward as they struggle to identify what the 'right' thing is to do, hence their positive reaction to personal support. Ways of assisting SMEs to use what is already available on general health and safety, therefore, would be another way to help them.

8.3.3 Promoting the workplace health agenda

Lessons about **promoting the workplace health agenda**, particularly to SMEs, include:

- SMEs overriding concerns are about workplace safety not health. WHC was required to adapt its marketing messages away from health and onto safety issues in order to make it

attractive enough to generate sufficient user numbers to meet its targets. There is likely to be a much lower level of demand for a health-focussed service which markets itself as such, for example, than was the case for WHC which used marketing to tap into concerns about health and safety.

- SMEs respond to different arguments about investing in workplace health than larger businesses. Larger employers are likely to have some awareness of the costs to their business of sickness absence for example and better understand the implications for day-to-day business operations etc. Smaller employers, on the whole, do not.

- Targeting SMEs with health messages requires that messages with specific resonance for this type of business are developed. This could include directly addressing the concerns of small businesses about having sufficient time and resources to adequately address their staff needs (WHC often helped employers simplify rather than complicate their procedures), and offering them the support they need to decide what the right steps are for their business. Assuring them that not all health and welfare provisions require extensive investment would also be a useful message.

- The WHD pilot may have been better able to deliver on its health targets if it had maintained its health messages. However, this would have required an even more aggressive and extensive marketing campaign, one which more effectively targeted employers with an ongoing absence management problem or which expected a lower monthly throughput of clients.

8.3.4 Summary

Overall, therefore, any future services targeting SMEs with health messages need to take account of what is likely to be low levels of demand amongst the general SME population, particularly if service marketing emphasises the health-based nature of the service. Higher demand levels could be expected amongst employers who recognise that they have a particular workplace health issue, but this is likely to be only a small proportion of employers at any one point in time. Thus, any future service design (e.g. the planned occupational health helpline for SMEs) will need to ensure that target numbers are realistic and staffing levels/delivery models appropriate given such demand constraints.

GLOSSARY

Additionality is the extent to which a new input (action or item) adds to the existing inputs instead of replacing or emulating them, resulting in a greater effect/aggregate.

Attitudes are an individual's personal opinions.

Baseline: the information gathered at the beginning of a study from which variations found in the study are measured.

Bias is systematic error in an estimate or an inference. **Attrition bias** is the tendency to lose groups of respondents over successive waves. If this loss is non-random the representativeness of the sample can be compromised producing biased results.

Binary variable or Dummy variable: a categorical variable with only two values representative of two categories. For example male=0 and female=1.

CATI – Computer Assisted Telephone Interview is a telephone interviewing technique in which the interviewer follows a script on the computer and enters the responses directly into the computer.

Comparator group (Control group) – The control group is the group in the study who are excluded from the programme. For some evaluation designs (notably, the matched comparison group design), the intervention group is selected from participants and the control group from non-participants. [Taken directly from S. Purdon, C. Lessof, K. Woodfield, C. Bryson (2001) *Research methods for policy evaluation*, London, Department for Work and Pensions, Research Working Paper No 2.]

Correlation is the strength and direction of a *linear* relationship between two variables. So the extent to which an increase in one variable correlates to an increase (or decrease) in the other, for example.

Cost-benefit analysis considers the differential benefits that can be gained by a given expenditure of resources. Cost-benefit analysis involves a consideration of alternative uses of a given resource, or the *opportunity cost* of doing something compared with doing something else. (Taken directly from *The Magenta Book: guidance Notes for Policy Evaluation and Analysis. Chapter 1: What is Policy Evaluation?* Government Social Researcher Unit London (2003))

Counterfactual – is defined as the number of positive outcomes that would have been observed amongst the eligible population if the programme was not in place. In most evaluations the counterfactual will be measured (with varying degrees of accuracy) using a control group who are not in receipt of the programme. [Taken directly from S. Purdon, C. Lessof, K. Woodfield, C. Bryson (2001) *Research methods for policy evaluation,* London, Department for Work and Pensions, Research Working Paper No 2.]

Depreciation: a concept used to estimate the loss of value of assets over time.

Difference in difference analysis: a commonly used empirical estimation technique in economics. The technique compares change over time between a group using a service or programme with change over time for a similar group who are not eligible for the programme.

Endogeneity: how a variable is caused by other variables within a model.

Evaluation: policy evaluation investigates the effectiveness of policy interventions, implementation and processes, to determine their merit, worth, or value in terms of improving the social and economic conditions of different stakeholders.

Final outcomes: in econometric terms is the dependent variable of the econometric model. In evaluation terms, these are the factors that, ultimately, the programme/service is attempting to change. Changes to final outcomes may need to occur through **intermediate outcomes** (e.g. shorter term changes that will, in time, lead to changes to final outcomes).

Fixed characteristics are characteristics that do not change over time; specifically, they remain constant before and after the programme, for example the geographical location of a workplace.

Hazards: a hazard is something (e.g. an object, a property of a substance, a phenomenon or an activity) that can cause adverse effects.

Heterogeneity is essentially variability, and describes populations, for example, consisting of elements that are not of the same kind or nature.

Heteroskedasticity occurs when the variance of the error term is not constant. The spread of residuals is different at each level of the explanatory variables.

Impact evaluation is used to measure the impact a policy or programme has on defined outcome measures. It usually involves measuring the counterfactual (see below). [Taken directly from S. Purdon, C. Lessof, K. Woodfield, C. Bryson (2001) *Research methods for policy evaluation,* London, Department for Work and Pensions, Research Working Paper No 2.]

Independent variable (coefficients): in regression analysis this is the variable/s used to explain variation in the dependent variable. **Dependent variable:** in regression analysis, this is the variable to be explained.

LFS: Labour Force Survey is a quarterly sample survey of private households living in Great Britain. Its purpose is to collect information on the UK labour market that can then be used to develop, manage, evaluate and report on labour market policies.

Occupational Health (OH) is the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations by preventing departures from health, controlling risks and the adaptation of work to people, and people to their jobs (ILO/WHO 1950).

Opportunity cost is the value of the next best alternative foregone as the result of making a decision.

Ordinary Least Squares (OLS) is the simplest and most common method of fitting a straight line to a sample of data, by minimizing the sum of the squares of the deviations of the data from the line.

Probit model: this is an econometric model for binary dependent variables.

Quasi experimental: a quasi-experimental design resembles an experimental design but without random assignment. An **experimental design** relies on random assignment to groups as the basis for obtaining two groups that are similar. Then, one group is given the programme or treatment and the other is not. The same outcomes are then observed in both groups.

Randomised assignment is a technique whereby a sample is assigned to different groups or treatments in a study randomly (i.e. each member of the sample is given an equal chance of being assigned to any of the groups such that their assignment cannot be predicted in advance).

Regression: a statistical technique that predicts values of one variable on the basis of two or more other variables. Linear regression is a form of regression analysis in which the relationship between one or more independent variables and another variable, called dependent variable, is modelled by a least squares function, called linear regression equation. Multiple regression refers to a regression model in which the fitted value of the response variable is a function of the values of one or more predictor variables.

Response rate: this is the responses received (here completed survey or qualitative interviews or returned paper based surveys) expressed as a proportion of the total number of survey interviews pursued.

RIDDOR: the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995.

Risk assessments are careful examinations of what could cause harm to people in the workplace.

Sample: this is all the units of the population that are drawn into the survey

Sensitivity analysis is used to determine how 'sensitive' a model is to changes.

SME: Small and Medium Enterprise. There is no single definition of SME as different factors such as turnover may be taken into account. For the purpose of this research the definition of SMEs corresponds to the definition in Statistics from the Enterprise Directorate Analytical Unit where SMEs are defined as businesses with less than 250 employees. See http://www.berr.gov.uk/whatwedo/enterprise

SPSS is a statistical software package used for the analysis of social science data.

Standard error: for a given statistic, for example the mean, the standard error tells how much variability there is across samples from the same population. Large values indicate the statistic may not be an accurate representation of the population.

STATA is a statistical software package used for the analysis of social science data.

Supply chains are the businesses and processes that take a product from raw materials to end-user.

Survey population: this consists of all the units (in this case SMEs) to which the survey results are to be generalised.

Sustainability is a term which is frequently applied to the preservation of natural resources. In this context, however, the term is used to discuss whether any service effects will be sustained over the longer term.

Telemarketing is a method of selling a product or service over the phone.

T-test: a statistical test used to test whether the differences between two means are significantly different from zero.

Unobservable factors: in impact evaluations, unobservable factors are characteristics that cannot be captured with the data available or are not measurable. Unobservable characteristics may affect participation in a programme and outcomes (e.g. motivation).

Weighting: in most surveys some groups will be over or under represented. This can be dealt with by weighting the data. The process of weighting is that:

- members of sub-groups that are thought to be over- or under-represented in the survey data are each given a weight
- over-represented groups are given a weight of less than one
- under-represented groups are given a weight of greater than one
- the weight being calculated is done in such a way that the weighted frequency of groups matches the population
- all survey estimates are calculated using these weights, so that averages become weighted averages, and percentages become weighted percentages, and so on.