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**An Evaluation of Successful Communication
with Small and Medium Sized Enterprises (SMEs)**

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iv EXECUTIVE SUMMARY

Objectives

This research entailed a very specific aim: to obtain a comprehensive assessment of communication techniques that have worked with small and medium-sized enterprises (SMEs). The Business Involvement Section (BIS) of the Health and Safety Executive (HSE) wants to assess the effectiveness of their work by pulling together existing information on evaluation in this topic area. They commissioned the Social and Organisational Factors Section of the Health and Safety Laboratory (HSL) to look at key issues and draw out any common themes running through a selection of research reports. The aim of this project therefore is to compile guidance that BIS can give to HSE colleagues for consideration when planning projects or campaigns. A brief, concise report was specifically requested.

The objectives were:

- To identify those communication techniques that work with SMEs, i.e. what evidence is there about what has the biggest impact on changing behaviour in SMEs? For example, mailshots, SHADs, electronic and paper guidance, campaigns, web based tools, InfoLine, radio campaigns, white van roadshow, inspector/HSAO visits, something else not listed, none of the above
- To identify what has not worked and how this is known, and what approaches have not been evaluated
- Examples of good practice in communicating with SMEs

Method

The evaluation process involved assessing the stipulated reports to determine the effectiveness of their communication methods with SMEs. The evaluation consisted of examining the methods used in deciding which firms to approach and how to approach them, the types of communication used, and the effectiveness of the communication. As such, the evaluation of the selected reports concentrated on the following four elements of an evaluation process: the inputs, the processes, the outputs, and the feedback. The inputs were the resources used for the interaction process, the processes were the type of communication used, the outputs were the outcomes/findings obtained, and the feedback was the suggestions/proposals that may change behaviour. It is important to note that many of the studies have not focused on changing behaviour of SMEs, so it was difficult to assess this factor.

Main Findings

The evaluation involved assessing research that consisted of different methodologies and data collection techniques. Therefore the findings for the studies cannot be seen as comparable, but there are some consistent methods and factors that emerged from the studies. The compilation of these methods and factors should *not* be viewed as definitive, but as a foundation for coming to terms with '*what works with SMEs.*' The methods and factors are listed in alphabetical order. One method or factor should not be seen as achieving a better result than another.

1. Control of substances hazardous to health (COSHH) essentials

The Wiseman and Gilbert (2002; $N = 500$) study, which entailed telephone interviews of purchasers of COSHH Essentials, found that 71% of respondents ($N = 500$) were aware of COSHH essentials through HSE's leaflets, through adverts - 18% and through trade associations - 11%. The study found also that 76% of firms that used COSHH Essentials had taken some form of action due to the guidance listed. Those firms of up to ten employees (64%) or between 50 and 99 (64%) were more likely to have taken some action than the larger firms of 100 or more staff (52%). This finding is limited to those businesses that have bought and used COSHH Essentials. The study recommended a more targeted promotion of COSHH Essentials to smaller firms.

The HSL has evaluated consistently COSHH and E-COSHH guidance sheets, and made recommendations (e.g. Cummings, Waheed, Corbett, Marlow & Williamson, 2005; O'Hara et al., 2003; Marlow Higginson & Williamson, 2004) that have led to improvements to the design, comprehensibility and usability of the sheets.

2. Culture

A few studies outlined the importance of culture when communicating with SMEs. They noted the necessity to understand the culture and needs of small and medium-sized firms, when designing or implementing communication techniques. One study highlighted the cultural gap that small firms believe exist between themselves and HSE. They believe that HSE is not aware of the "real world" and the difficulties in running a business.

3. Face-to-face communication

Several of the studies noted the use of face-to-face communications with small firms; with small firms within the construction industry; and with SMEs run by ethnic minorities. However, while face-to-face and one-to-one interaction worked in generating and disseminating useful information in one of the studies (NEAT, 2000), the follow-up telephone contact realised a reduction in the openness by SMEs. One study (Fairman & Yapp, 2005) found that businesses were more compliant when inspectors or local training schools (in this case for hairdressers) intervened or inspected the premises.

Only one of the studies indicated that face-to-face was an effective way to communicate, but the positive interaction was limited to the visual point of reference. However, the studies did suggest that SMEs due to their size might prefer face-to-face interaction, and as shown by the Fairman and Yapp (2005) study may influence compliance behaviours.

4. Gatekeepers

One study emphasized one barrier in communicating with SMEs. They mentioned that SMEs have gatekeepers, e.g. the owner, or, in larger organisations, this could be a senior manager who is responsible for occupational health and safety, and who provide or withhold information. As they are the ones in charge of categorizing information, the flow of information depends on their sense of what is or is not important. The researchers of that study recommend the targeting of these gatekeepers in order to effect change within the organisation. They proposed also that any interventions should target the workforce directly.

5. Incubation period/start-ups

A few studies proposed that firms might be more receptive to regulatory input at start-up than when already established. Such an approach may be fruitful, as small businesses tend to prefer

personal rather than impersonal sources of information (Kingston-Howlett, 2001). However, Kingston-Howlett (2001) stated also that the different phases of the lifecycle of the firm might necessitate different contact techniques.

6. HSE Infoline

The HSE Infoline has shown success in giving out health and safety information to firms, which would be inclusive of SMEs. Wiseman and Gilbert's (1999) study showed that callers to the infoline wanted to obtain health and safety information (64%), gain health and safety guidance or advice (32%), or were concerned about a specific problem at work (16%). The expected benefits included, hoping for useful and relevant information (77%), ensuring compliance with the law (36%), and getting information that is clear and easy to understand (27%), with the majority of callers feeling that they benefited from calling the helpline (86%). The majority of the callers (66%) to the helpline took some form of action as a result of the contact, with 32% using the information to comply with health and safety regulations.

7. Intermediaries

Several studies mentioned the use of intermediaries, e.g. accountants, banks and trade associations, as a way to improve communication with SMEs. The Haslam et al. studies (1998, 2001) showed that intermediaries have become more effective in transferring health and safety information to small firms. They proposed that while intermediaries can continue to impact positively on small and medium-sized firms, that this could not be done over the short term. Fairburn and Patel (2003) noted that intermediaries who worked with black and ethnic minority SMEs were able to promote health and safety. They recommended a long-term approach to developing relationships with intermediaries, but noted that strong support is needed from the HSE to drive the process forward.

The COI Communications (2003) research highlighted that SMEs tend not to have a clear picture of the information and advice marketplace and do not have time to build a picture themselves. As a result they rely heavily on third-party advisors, often assuming that any important issues will reach them one way or another. Unfortunately, although intermediaries are able to relate to SMEs, there are few businesses within the sector that actually use their services. Karnon (2002) found that only 15% used accountants for advice, 4% used solicitors, 4% used business links, 4% used trade associations, and 5% used banks.

8. ICT and the Internet

The ease of transmitting information over the Internet is seen as a useful way to communicate with SMEs. However, few studies have assessed effectively the ease of use of this medium for SMEs, and the few that have researched it have not realised overall positive results. Karnon (2002) found that only 1.8% of organisations made use of HSE Internet services. While other research shows that many SMEs find the HSE's website difficult to navigate (NPD Associates, 2002). The Fairman and Yapp (2005) study, while a small study, found that the majority of its respondents did not use the Internet as a source of information.

However, many of the researchers acknowledge that the Internet has the potential to deliver health and safety information to small and medium-sized firms (e.g. Dickety, 2005; Patel, 2003; Rakel, et al. 1999), but that the HSE should not neglect other forms of communication (Dickety, 2005; Rakel et al., 1999). It is especially important to note that access to the Internet differs by sector and region (Karnon, 2002), but that electronic tools need to be developed in the future as more workplaces and individuals are using the Internet (Tijssen & Links, 2002).

9. Leaflets

While only one study evaluated leaflets, the researchers (Ferguson et al., 2003) conducted an extremely rigorous and extensive assessment of a variety of leaflets on noise, manual handling, and musculoskeletal disorders. The results showed that the use of leaflets as an effective communicative tool could be improved by targeting the reading age to the specific requirements of the intended audience as well as ensuring that the messages are positive. The study noted that leaflets designed with a reading age of 9.1 years are seen as 'easy' to read, while leaflets designed for a reading age of 13.7 years are seen as 'fairly difficult', while those with a reading age of 15 years are classified as 'difficult.' To ensure that leaflets reach and are understood by as wide an audience as possible, they should be designed for as low a reading age as possible. To assist with the planning of leaflets, Ferguson et al. (2003) provided a user's guide to designing leaflets in their study.

Another study asked the respondents to comment on their use of health and safety leaflets. The responses were not favourable as most respondents found the leaflets to be either too complicated, too long, or appear not to be relevant to their needs. Further, the leaflets were often misunderstood or misinterpreted. These findings may link into the finding above which showed that the leaflet needed to be simpler in design and content.

10. Literacy

A few studies commented on the low literacy levels among SMEs. This is an issue that has been highlighted but needs to be more widely researched. Ferguson et al. (2003) showed that the leaflets that were produced by HSE were pitched at a higher level than was needed to encourage understanding of what was required and to effect change.

This finding is one that will affect all aspects of the communication process with SMEs. If the information that is being designed is targeted at a level that is not easily understood by the recipients, then the recipients will be less able to implement and maintain satisfactory, regulatory practices.

Previous research has concluded that one-fifth of the UK population is estimated to be functionally illiterate (see Ferguson et al., 2003). However, Ferguson et al. (2003) noted also that leaflets that were redesigned to account for lower reading age levels, were found to be acceptable by individuals with higher reading levels.

11. Networking/partnerships/sharing good practice

Eight of the studies evaluated suggested that SMEs might benefit from working with other organisations, whether through networking, partnerships or by sharing good practice. However, this type of relationship needs to be clearly outlined and delineated before implementation. A review of the Good Neighbour Forum found that the SMEs wanted to interact with the larger organisations, but felt that they did not benefit from the scheme, as the larger companies were working to their own agenda, which did not promote a sense of partnership.

12. Safety and Health Awareness Days (SHADs)

Safety and Health Awareness Days (SHADs) aimed at improving the control of isocyanate exposure in motor vehicle repair (MVR), with a view to reducing the incidence of occupational asthma in that sector, were evaluated by two studies (O'Hara 2005; O'Hara, Davies & Sandys, 2006). The findings showed that the use of SHAD workshops was effective in raising the awareness of health and safety issues of spraying paint. Some of the results from the first study included:

- viii• An increase in the levels of awareness of the hazards associated with sprayed isocyanate based paint application and related risk control measures
- An improvement in the awareness of the health risks associated with two-pack isocyanate paints (92% of participants)
- An intention to take action within their business on at least one aspect of health and safety addressed within the event (94% of participants).

The second study involved evaluating the ‘intended behaviour’ of the participants from one of the SHADs. The pilot SHAD held in Bristol was selected and follow up visits were made to 38 businesses. The findings showed that:

- In 52% of the businesses the exposure control measures had improved
- 97% of 36 businesses had either a suitably ventilated booth or spray room
- 94% of 36 businesses had suitable air fed respiratory protection equipment (RPE).

13. Sector specific information

Close to half of the research studies (47%) highlighted the need for sector specific information when communicating with SMEs. Many small and medium-sized enterprises prefer to focus on what is essential for them, rather than having to focus on generic information that may not realise many benefits in the short or medium term.

14. Seminars

One study (Rakel et al., 1999) evaluated the impact of seminars and mailshots on SMEs. They found that seminars (47%) worked better to transmit health and safety information than did mailshots (9%). However, while mailshots worked better in some sectors than others (e.g. agriculture), seminars had an overall better impact, especially in sectors, such as agriculture, construction, and motor vehicle repair (MVR).

15. Simple language

Many of the research studies (38%) recognised the need for simple, straightforward and uncluttered language when contacting small and medium-sized firms. This is especially necessary for the smaller sized firms.

16. Variety of sources

One point that arose was the need to use a variety of sources when communicating with SMEs. These studies stated that one single objective or activity would not be sufficient in getting messages across to SMEs. PricewaterhouseCoopers (2001) found it difficult to develop one ‘model’ to assist SMEs with health and safety issues due to their diverse needs. So that while, HSE and local authorities are the most common sources for disseminating information on health and safety, there needs to be an increase in the availability of information and advice on health and safety issues from sources, e.g. trade associations, that are not associated with the enforcement action (Vickers et al., 2003).

17. Verbal communication

A few studies noted that small firms tended to have a higher dependence on verbal communication within the working environment, and would be more receptive to verbal communication from outside sources.

Recommendations

There are several recommendations that have arisen from the research. These have been previously stated, and HSE may already be engaged in many of these recommendations, but they are some of the better ways in promoting consistent and comprehensive communication to SMEs.

1. The health and safety communication, as much as possible, needs to be sector specific.

Many of the studies suggested that SMEs prefer sector specific information. This may be due to the fact that they have limited resources and would need to focus in quickly on what is relevant to their needs.

2. Consider the literacy levels when designing materials.

While extensive research has not been done in this area, the research that has been completed has highlighted that literacy levels could be a contributing factor in the difficulties in communicating with SMEs. HSE needs to ensure that its communication is targeted at the correct level. The content of HSE's information, i.e., its relevance and suitability to the recipient needs to be taken into account, and adapted accordingly, if possible.

3. Develop and maintain links with intermediaries.

Intermediaries can assist in communicating health and safety information to SMEs. Accountants and Banks and Health and Safety Consultants have had some success in this respect. New and different intermediaries may be used, such as The Prince's Trust, local training schools, trade associations, and business incubators. Business incubators are viable sources, as they are responsible for moulding and directing new businesses, and those start-ups that use business incubators have a longer survival rate than other businesses.

4. The consistent use of a database to record interventions that have worked with SMEs.

The evaluation has shown that there is no one technique that stands out from all the others. In order to adequately (and consistently) determine those techniques that give consistent and quality results, HSE should consider consistently using a database to record those interventions used on SMEs and their success rate. The database could catalogue those interventions that have worked, for example, by size, industry, ethnicity and gender. Over time HSE would have a record of the communications techniques that would generate the best results. This would eventually highlight any consistency in communication practices across SMEs.

It is known that the HSE has in place databases such as the Corporate Operational Information System (COIN) and the FOCUS Data Guide. Information may be available already in these databases to better track and evaluate the effectiveness of interventions.

5. Evaluate programmes, interventions and communication techniques used with SMEs.

Other researchers have recommended the evaluation of programmes, interventions and techniques (e.g. Rakel et al. 1999). The evaluation needs to be considered at the planning stage of a study, to be able to determine if what the researcher is planning to accomplish has been accomplished. This is essential if HSE wants to determine those communication techniques that work best with SMEs. Without an adequate and

structured evaluative process it is difficult to determine what works from what does not. Small and medium-sized enterprises constitute close to four million businesses, they are in a diverse range of industries and regions. They can employ from 0 employees to 249. It is therefore not appropriate to assume that because, for example, workshops have worked with one set of SMEs that they would work with all 3.9 million.

1 INTRODUCTION

1.1 AIM AND OBJECTIVES OF THE PROJECT

This research entailed a very specific aim: to obtain a comprehensive assessment of communication techniques that have worked with small and medium-sized enterprises (SMEs). The Business Involvement Section (BIS) of the Health and Safety Executive (HSE) wants to assess the effectiveness of their work by pulling together existing information on evaluation in this topic area. They commissioned the Social and Organisational Factors Section of the Health and Safety Laboratory (HSL) to look at key issues and draw out any common themes running through a selection of research reports. The aim of this project therefore is to compile guidance that BIS can give to HSE colleagues for consideration when planning projects or campaigns. A brief, concise report was specifically requested.

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- To identify what has not worked and how this is known, and what approaches have not been evaluated
- Examples of good practice in communicating with SMEs.

The report contains the following sections. Section two presents the background information, section three outlines the methodology used in collecting and analysing the reports, section four states the findings, section five outlines the discussion, and section six provides the recommendations.

2 BACKGROUND

2.1 OVERVIEW OF COMMUNICATION

Communication is essential in society in order to transmit and receive information. One definition states that “Communication is any act by which one person gives to or receives from another person information about that person's needs, desires, perceptions, knowledge or affective states. Communication may be intentional or unintentional, may involve conventional or unconventional signals, may take linguistic or nonlinguistic forms, and may occur through spoken or other modes” (NJCPD, 1992, p.3). It can take different forms, and can be direct, where all parties involved in the communication are present at the same time, such as a telephone conversation, a company board meeting, a chat room event or instant messaging. It can also be indirect where there is less need to be explicit, where the recipient is able to read between the lines, and to rely less on words to convey meaning, especially on the literal meaning of the spoken word, and more on nonverbal communication. It is important to understand that communication revolves around the ways that individuals create the meaning of what is communicated to them, either psychologically, socially or culturally; how these messages are understood mentally; how ambiguity arises; and how it is resolved (van Ruler, 2004).

Generally, communication is about information giving and information receiving, but specifically the transmitter wishes to achieve a specific objective but the receiver may or may not be open to receive the message of the transmitter. It is important therefore from the onset to decide the type of communication in which the transmitter wishes to engage. van Ruler (2004) proposes a four-quadrant model that organisations can use to determine the *type* of communication that they wish to project. These are, the *information strategy*, a controlled one-way and objective approach that concentrates on providing information. The *persuasion strategy* is a controlled one-way and subjective approach that operates to target information for specific reasons and for specific results, such as advertising and propaganda. The *consensus-building strategy* involves a two-way and objective approach. This approach entails obtaining agreement between the respective parties, such as with respect to policy development and decision-making. The *dialogue strategy* follows a two-way and subjective approach, and is useful when organisations wish to consult or brainstorm with the relevant stakeholders in order to identify problems and their respective solutions. See Figure 1.

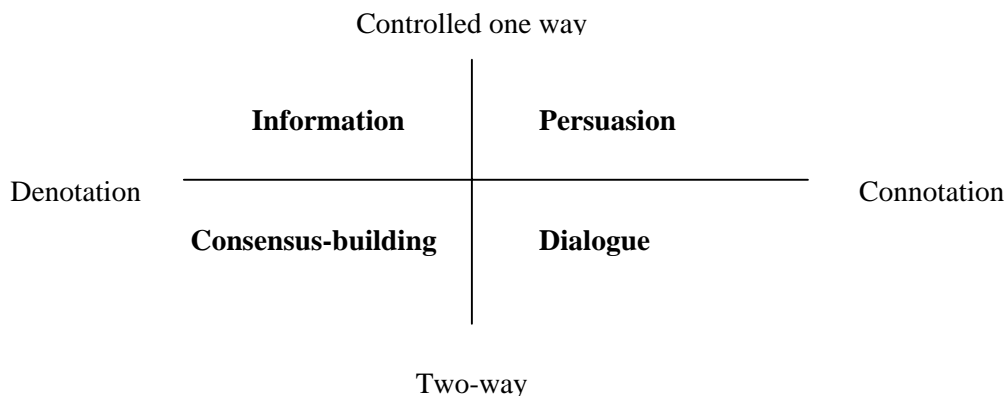


Figure 1 The communication grid, extracted from van Ruler (2004), p. 139

While the majority of the Health and Safety Executive's communication with and to SMEs tend to focus on providing information (the *information strategy*), HSE may wish to consider if another approach may be more useful. For example, the *dialogue strategy* may promote a better interaction with SMEs. Research in 1998 showed that HSE's image with small and medium sized enterprises improved when it promoted itself as an advisor rather than an enforcer (See Dickety, 2005).

2.2 CHARACTERISTICS OF SMALL AND MEDIUM-SIZED ENTERPRISES (SMEs)

2.2.1 Definition of SMEs

Although a business can be defined according to the size of its employees, balance sheet or turnover, the Department of Trade and Industry (DTI) acknowledges that there is no single definition of a small firm, mainly because of the wide diversity of businesses, but proposes a useable definition based on the number of employees in a firm. For the purposes of this evaluation the DTI's definitions are used¹, which states that a micro firm has 0 - 9 employees; a small firm has 0 - 49 employees (includes micro) and a medium firm has 50 - 249 employees.

Small and medium-sized enterprises dominate the business world in the United Kingdom (UK). At the beginning of 2004, there were 4.3 million business enterprises in the UK, with 99.3% classified as small, 0.6% as medium and 0.1% as large (DTI, 2005). Further, at the start of 2004, the number of enterprises with no employees was 3.1 million (72.8%).

2.2.2 Diversity of SMEs

SMEs are businesses that are independent from other organisations. They are diverse, and can either be dynamic and flexible, with the ability to innovate, or traditional, based on family involvement and located within the local business environments, or they can be start-ups, which are generally viewed as fragile organisations striving for life and subsistence.

The diversity of the sector (COI Communications, 2003; Stephens, Hickling, Gaskell, Burton & Holland, 2004; Vinten, 1999) can reflect working practices (Vinten, 1999) or having a sense of uniqueness (COI Communications, 2003; Vinten, 1999). It is important therefore to acknowledge the diversity of SMEs (Ling, 2004; Stephens et al., 2004), which can focus around any or all of the following variables: region, industry, ethnicity, gender, age, size of company, literacy and education levels. Woolgar, Vaux, Gomes, Ezingard and Grieve (1998) note that individually SMEs have very specific and specialised needs which is reflected in the different suppliers, customers and competitors with which they interact, even within the same sector. Consequently, the assumption should not be made that one form of communication will be able to work across all these businesses and address successfully all of those factors.

2.2.3 Direction of SMEs

The importance of the SME to the economy is well documented (see Vinten, 1999). For example, SMEs account for 99% of all enterprises in Europe, employ 66% of Europe's workforce, and most new jobs are created by micro enterprises of up to six people. As they are such a significant factor in the economy, the European Union (EU) recognises that its efforts to

¹ <http://www.sbs.gov.uk/sbsgov/action/layer?r.l2=7000000243&r.l1=7000000229&r.s=sm&topicId=7000000237>

usher in a competitive and dynamic knowledge-based economy by 2010 will depend greatly on the opportunities for European SMEs to grow and prosper.² Similarly, the United Kingdom's (UK) government acknowledges the importance of SMEs in making the UK the best place to start and grow a business (SBS, 2004a). They aim to achieve this by focusing on seven main areas, which are: better regulation and policy; more enterprise in disadvantaged communities and under-represented groups; building an enterprise culture; assisting to create a more dynamic start-up market; building the capability for small business growth; improving access to finance; and improving the business experience of government service (SBS, 2004a).

One factor that influences the direction that a business will take is its ability to survive. However, due to the dynamic nature of the sector, inclusive of the size and character of SMEs, many organisations start up and go out of business cyclically. In determining the survival rates of small business, it is necessary to note that not all of the small businesses would register for value added tax (VAT) or have a business account. Despite this, the following sets of statistics would provide a good indication of new start-ups, survival rates and the demise of businesses. In the first half of 2004 there were 288,200 new businesses in England and Wales, an increase of 23% over the same period in 2003, while there were 164,400 closures, an increase of 18% over the same period in 2003 (Barclays, 2004). The survival rates show that after one year in business 92.2% of businesses are still trading (2001 data), while after three years in business, this number drops to 66.5% (1999 data; SBS, 2004c). Due to the fact that many small businesses have a relatively short life, this does not allow the maturation and establishment of systems and skills (Bibbings, 2002), and affects their ability to engage in consistent and structured health and safety policies and plans.

2.3 SMEs AND THE INTERNET

The Internet has become an important source of information provision and business development for many organisations. It can contribute to competitive advantage by strengthening rather than replacing unique products, proprietary content, and distinctive physical activities (Porter, 2001). It is especially useful for SMEs because it allows a competitive edge, and advances them in e-business.

On the surface it would seem that SMEs are taking advantage of the information age from their level of interaction with the Internet as shown below (DTI, 2004):

- 30% of micro businesses trade online
- 30% of small businesses trade online
- 51% of micro businesses have a website
- 77% of small businesses have a website

Additionally, according to the latest market research survey ($N = 1,113$) commissioned by Ofcom in February 2004, 68% of UK SMEs have Internet access³. Interestingly, the research showed also that the market has changed little in terms of overall Internet penetration by SMEs in the last 18 months.

² http://europa.eu.int/information_society/ecowor/smes/index_en.htm

³ http://www.ofcom.org.uk/research/telecoms/reports/bbresearch/int_bband_updt/may2004/

On the other hand, fewer businesses seem to take advantage of the technology from the figures shown below which list the most common reasons for using Information and Communication Technology (ICT)

22% of businesses use it to increase the efficiency of their processes

18% of businesses use it to improve communication with customers

15% of businesses use it to keep up with progress (DTI, 2004; *N* = 2,716)

However, in respect of a government electronic impact on SMEs, figures show that e-mail communication between government and businesses in 2004 stood at only 12% (i.e. in respect of businesses reporting receipt of e-mail communication from government), but this did decline from 14% in 2003 (DTI, 2004). It is important to note that larger businesses are more likely to interact with government by e-mail than small or medium sized enterprises. Further, the same research showed that only 2% of all businesses in the South-West used online interaction to get regulatory information from government, increasing to only 10% in the Midlands, while only 3% of businesses in the South-West had a link with their local council, increasing to only 10% in Scotland. See Appendix I. It is expected that these figures would be lower for SMEs. One reason proposed for the low use of SMEs in getting and using new technology is their hesitancy in acknowledging the World Wide Web as a low cost, fast and widespread way to gain information (Woolgar et al., 1998). They were particularly discouraged by having to navigate different links to get to one bit of information and would generally give up in frustration (Woolgar et al., 1998) if they could not easily access what they required.

While the present research was able to gain some data on the types of information and communication technology that exists in organisations, there is limited research on how this technology is used specifically by small and medium-sized enterprises.

Other research has shown that SMEs are not as proactive in engaging with new technology. For example, in November 2004, a Communication on Challenges for the European Information Society beyond 2005 highlighted that

“... the effective take up of new business processes and the adoption of new business models to exploit the potential of ICT remains a challenge, especially for the millions of European SMEs. The lower and slower investment in ICT in Europe is a clear macro-level indicator that Europe is not investing in productivity enhancing ICT as much as the USA. In addition, European performance is affected by the large proportion of SMEs, which are still lagging behind larger enterprises not only in terms of ICT infrastructure deployment but also in the level of sophistication of ICT use” (p. 9).

Additionally, Pupáková, Lavrin, & Zelko, (2004) found that SMEs risk being excluded from electronic supply chains, networks, and customer-facing practices as electronic business practices become a more important part of business. They found also that many SMEs depend on local support networks, such as Regional Development Agencies (RDAs), Chambers of Commerce, and Enterprise Agencies whose collective ‘front line’ is the business information and knowledge services.

Their study showed additionally that business advisors possess a wide range of skills in advising on traditional business practice, but felt challenged by their lack of awareness, understanding and expertise that were necessary to advise on aspects of e-business for investment and operational planning, human resource issues, and extended business process. They proposed the development of an interactive portal to provide support and advisory services for SMEs’ managers in any business area. The portal would be continuously updated and improved with

new branches and data serving the needs of the present day's SME managers so they would be able to receive all the latest updates for successful and efficient business managing. Pupáková et al. (2004) concluded that while most countries have many business associations, only a few are well placed to serve the SMEs due to the domination of larger firms and a lack of resources.

2.4 FACTORS OUTSIDE OF HEALTH AND SAFETY THAT IMPACT ON SMEs ON A DAILY BASIS

There are a variety of factors that influence SMEs within the business environment, and these are essential if they are to survive over the long term. Small (and medium-sized) businesses need usually to concentrate on other priorities and issues (Bibbings, 2002; COI Communications, 2003; Pupáková et al., 2004) over a working day, instead of those involving health and safety. However, due to their lack of knowledge management and resources, SMEs may find it difficult to manage these effectively (Pupáková et al., 2004), which may limit their ability to focus on other business requirements and regulations.

The issues include:

- Keeping track, analysing and introducing regular change into business processes
- Updating technologies
- Systematically increasing skills of managements and personnel
- Identifying new trends and customer requirements in time
- Adapting the infrastructure
- Running continuous improvement in quality and efficiency of production addressing competitiveness and globalisation issues in timely way (Pupáková et al., 2004)
- Complying with regulations in respect of Taxation, inclusive of value added tax (VAT)
- Generating income, inclusive of sales, marketing, business development, export
- Addressing employee issues, e.g. rights, entitlements, recruitment, training
- Being aware of and acting on peripheral issues, such as recycling, and social good (COI Communications, 2003)

The issues listed above are ones that affect any business, but a larger sized business may have more resources to manage them. As a result, smaller sized businesses have to choose those issues on which it wishes to invest its limited resources most effectively. This may account for the low "interest" that SMEs have in continuously exploring and implementing health and safety concerns. Overall, the low priority of health and safety may be due to a lack of resources.

2.5 INFLUENCES ON COMMUNICATION BEHAVIOUR AND HOW BEST TO INFLUENCE CHANGE

There are a few factors that impact initially on SMEs receptiveness to communication, and their wish or intention to act on that communication and change behaviour patterns. Extensive research, inclusive of the formulation of theories, has been conducted to determine what can cause behaviour change (e.g. Ajzen, 1991 - the theory of planned behaviour). While behaviour change was not specifically addressed in the majority of the research as part of the present project, the following highlight some of the factors that can impact on SMEs.

2.5.1 SMEs attitudes towards communication

Small and medium-sized enterprises tend to vary in their openness to communication. As such, communication may focus on information both in and out of work, or focus on only what is relevant to advance the business (COI Communications, 2003). The regular communication in which SMEs engage, tends to focus on compliance issues. So they may meet with an intermediary such as an accountant or consultant to ensure that they meet the required compliance procedures (COI Communications, 2003). In respect of internal communication procedures within SMEs, these tend to be informal for the most part, with the larger organisations employing semi-formal support structures such as meetings (Vinten, 1999). Vinten (1999) found there was a need for a more formal approach to internal communication within SMEs.

2.5.2 Literacy

The present research was able to find limited studies that have addressed literacy levels among SMEs (e.g., Biggs & Crumby, 2000; Ferguson, Bibby, Leaviss & Weyman, 2003). However, the consensus was that material targeted to SMEs was written at a higher level than was necessary for understanding and also to effect change.

Atkin and Merchant (2004) in examining literacy and numeracy levels among small businesses in Lincoln ($N = 84$) found that employers and employees did not place sufficient value on literacy and numeracy skills, which appears to be rooted in a deep-seated part of a rural economy which still has at its core low-paid, seasonal, practical and manual work.

2.5.3 Regulations as an obstacle to business

While regulations are necessary in business, some businesses tend to see them as a hindrance rather than as a way to assist in maintaining a safe workplace. This may affect their responsiveness to receiving and acting on communication about obligatory regulations for the workplace. The Annual Small Business Survey (SBS, 2004b) found that 31% of all businesses thought that regulations worked to hinder their success; with 13% of them thinking that it was their greatest obstacle. Interestingly, more businesses (20%) cited health and safety regulations as ones that created obstacles, with 14% citing tax regulations and 12% environmental regulations. Close to one quarter of those sampled (23%) did not list any particular type of regulations.

2.5.4 The mental models approach and communication

The mental models approach has been used extensively to design and test risk information (see Bostrom, Atman, Fischhoff & Granger Morgan, 1994; Bostrom, Fischhoff & Granger Morgan, 1992; Breakwell, 2001; Johnson, 2005). It takes account of understanding how individuals process information and the factors that may impact on how information is received and subsequently interpreted. As Petts, McAlpine, Homan, Sadhra, Pattison, & MacRae (2002, p.2) state “A mental-models approach to research aims to understand individuals’ cognitive tools. It starts from the premise that people process new information within the context of their existing beliefs. If they know nothing about a topic then a new message will be incomprehensible. If they hold erroneous beliefs then a new message may be misconstrued. Therefore, knowledge of the extent and nature of a receiver’s knowledge and beliefs is essential to the design of effective messages.”

The mental models approach stresses that “expert” knowledge may not be the only option when communicating with individuals and that “lay” knowledge of the individual should be recognized when attempting to change behaviour or influence organisational or cultural norms. This type of understanding is essential in attempting to communicate with SMEs. Some of the HSE commissioned studies that have addressed the mental models approach include Petts et al. (2002), Smith & Beswick (2004), Weyman, Chambers & Keen (2002), Weyman & Kelly (1999) and Williamson & Weyman (2005).

2.6 REASONS TO IMPROVE COMMUNICATION WITH SMEs

Research has stated that it is difficult to gauge the range of information and advice that is available to SMEs (COI Communications, 2003). One reason may be because they tend to have gatekeepers who restrict entry to the organisations (Stephens et al., 2004), and it may be difficult to determine their knowledge and needs. Other research has established that some SMEs have little to no contact with HSE and local authorities (LAs) and prefer to remain anonymous so as to reduce the possibility of enforcement action (Sanchez, 2004). However, it is important to communicate with small and medium enterprises, as the health and safety performance in small organisations is not as strong as in larger firms (Dickety, 2005). However, while accident rates are higher in small firms, there tends to be a longer interval between accidents so people tend to forget about those risks that are associated with their particular business (Bibbings, 2002). As such, they will tend to downplay the need for consistently engaging in health and safety.

Overall, many different forms of communication have been used with SMEs, inclusive of:

- Providing information (leaflets, HSE’s publications, the Internet, newsletters, forms)
- Focus groups/workshops/seminars/conferences
- Presentations
- Emails/electronic content
- Inspections/site visits/ one-to-one support
- Conversations
- Interviews (telephone, face-to-face)

- Surveys

While a variety of techniques have been employed, these seem to be selected based on ease of use, rather than any other criteria.

2.7 HSL'S PRESENT RESEARCH ON COMMUNICATING WITH SMEs

HSL's Human Factors Group is at present engaged in conducting a few studies that are addressing the communication process with SMEs. These include: reviewing previous research and developing a framework for assessing the value of health and safety messages within workplace and the development of more effective risk messaging and delivery techniques (Cummings et al); communicating with Korean businesses in Kingston (Marlow) and communicating with organisations with respect to occupational asthma (Lunt). These can be found at Appendices II to IV respectively. Overviews of these studies are included to provide a link to the on-going research with SMEs in respect of the communication process. They were not evaluated as part of the present research.

3 METHODOLOGY

3.1 INITIAL RESEARCH

The BIS provided initially a set of reports that they wished to be included in the review. To supplement these reports, desk research was conducted to obtain any appropriate research reports that were not identified by HSE, that were relevant to the project. This involved searching HSL's database of research reports as well as those on the HSE's intranet and Internet sites. Additionally, searches were done on the Internet and using HSE's available online resources such as e-journals, e-portals and databases. In all, 36 studies were identified as relevant to the present research. Of these, 29 are empirical studies that generated primary data of the communicative process.

3.2 RESEARCH PROCEDURE

The BIS of HSE wanted an evaluation of the most recent research on communicating with SMEs. While an evaluation can take different forms and methods, it basically is concerned with evaluating the success of a process and may consist of the following elements⁴:



Rakel, Gerrard, Langford & Shaw (1999) note that while the evaluation of a policy or programme is an essential element to assess the worth of such policies or programmes to ensure that an effective management system is in place, that this is rarely done. However, Rakel et al highlight further that evaluations tend to be infrequently used as they are time consuming, costly, are likely to be done at the end of a programme cycle when they might be overlooked, and may bring poor performance and failures of programmes or policies to the forefront which may not be in the best interest of the organisation, policy makers or those who carry out the programmes. Those evaluations that are carried out are usually quick and superficial, without assessing the core components. The majority of the studies that were included in the present research did not include an evaluation component.

The evaluation process in the present research involved assessing the stipulated reports (see Appendix V) to determine the effectiveness of their communication methods with SMEs. The evaluation consisted of examining the methods used in deciding which firms to approach and how to approach them, the types of communication used, and the effectiveness of the communication. As such, the evaluation of the selected reports will use the above stated format. The *inputs* were the resources used for the interaction process, the *processes* were the type of communication used, the *outputs* were the outcomes/findings obtained, and the *feedback* were the suggestions/proposals that may change behaviour. It is important to note that many of the studies have not focused on changing behaviour of SMEs, so it was difficult to assess this factor.

⁴ <http://www.aepro.org/inprint/conference/BDick.html>

3.3 GENERALIZABILITY AND REPRESENTATIVENESS OF RESEARCH ON SMEs

In order for tools and procedures to be seen as effective and useable across a wide variety of sectors or business they need to have properties of being generalizable and representative. Unfortunately, many of the research studies assessed in the SME sector, as part of the current project, tended to be qualitative in nature. While this methodology does provide useful information, the findings may not be applicable to other sectors or businesses due to the small numbers involved in the research.

4 FINDINGS

Some of the studies reviewed have not stated how they contacted or selected participants for their studies and while it is difficult to get willing participants for any research, it is necessary to establish if the study could be considered as representative and could be used to imply behaviour patterns across a wider population. As such, most of the studies in this evaluation should be considered only as 'stand-alone' studies and should not be seen as providing information from which extensive generalisations could be made about the SME sector.

Table 1 lists all of the empirical studies ($N = 29$) evaluated as part of the present research, emphasising the types of communication techniques that the respective researchers used. Just over one-quarter of the studies (28%) included an evaluative component as part of their methodology. However, as the table shows, a variety of techniques have not been used in obtaining or giving information from and to SMEs. The most used technique was interviews (59%) followed by surveys (31%), discussion groups (13%), focus groups (13%) and workshops (13%). Only one study evaluated leaflets, with a similar number assessing mailshots, and two studies assessing seminars with only one of those utilising an evaluative component as part of its assessment. Two studies evaluated safety and health awareness days (SHADs). None of the studies examined radio campaigns or white van roadshows. Due to the strong focus on certain methodologies, such as interviews or surveys, it was difficult for the researcher of the present report to conduct a comprehensive evaluation of those communication techniques that work best with SMEs.

Table 1 Communication Methods used in the Research Studies

	<i>Case Studies</i>	<i>Discussion Groups</i>	<i>Focus Groups</i>	<i>Intervention Attributes</i>	<i>Interviews</i>	<i>Leaflets</i>	<i>Mailshot</i>	<i>Org. Visit</i>	<i>Seminars</i>	<i>SHADs</i>	<i>Survey</i>	<i>Workshops</i>
Beswick & Sprigg (2001)*			✓									
Biggs & Crumbie (2000)					✓							
COI Communications (2003)	✓	✓			✓							
Fairburn & Patel (2003)					✓							
Fairman & Yapp (2005)					✓							
Ferguson et al. (2003)						✓					✓	
Haslam & James (2001)*			✓									✓
Haslam et al. (1998)					✓						✓	
Karnon (2002)											✓	
Kingston-Howlett (2001)	✓				✓							
Marsden et al. (2002)		✓										
McKinney (2002)			✓		✓						✓	
Neat (2000)*		✓						✓			✓	
NPD Associates (2002)			✓		✓							
O'Hara (2005)*										✓		
O'Hara et al. (2006)*					✓			✓		✓		
O'Hara & Dickey (2000)*	✓				✓							
PricewaterhouseCoopers (2001)									✓			✓
Rakel et al. (1999)*		✓					✓		✓			
Redwaters Limited (2004)												✓
Scotney (2001)*					✓						✓	
Stephens et al. (2004)	✓			✓							✓	
Strutt et al. (2004)				✓	✓							
Tait & Walker (2000)*					✓							
Tijssen & Links (2002)												✓
Vickers et al. (2003)					✓						✓	
Wiseman & Gilbert (1999)					✓							
Wiseman & Gilbert (2002)					✓							
Witana (2001)					✓						✓	

* Research with an evaluation component

While the methodologies, data collection techniques and findings for the studies cannot be seen as comparable, there are some consistent methods and factors that emerge from the studies. These should be considered when communicating with SMEs. The compilation of these methods and factors should *not* be viewed as definitive, but as a foundation for coming to terms with “*what works with SMEs.*” The methods and factors are listed in alphabetical order, and one method or factor should not be seen as achieving a better result than another. The numeric reference used to identify the studies is found at Appendix V. Table 1 provides an overview of the empirical studies, while Appendix V contains all of the research assessed for this report inclusive of the research reviewing multiple studies.

4.1 CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH (COSHH) ESSENTIALS

The Wiseman and Gilbert (2002; $N = 500$) study, which entailed telephone interviews of purchasers of COSHH Essentials, found that 71% of respondents ($N = 500$) were aware of COSHH essentials through HSE’s leaflets, through adverts - 18% and through trade associations - 11%. The study found also that 76% of firms that used COSHH Essentials had taken some form of action due to the guidance listed. Those firms of up to ten employees (64%) or between 50 and 99 (64%) were more likely to have taken some action than the larger firms of 100 or more staff (52%). This finding is limited to those businesses that have bought and used COSHH Essentials. The study recommended a more targeted promotion of COSHH Essentials to smaller firms.

The HSL has evaluated consistently COSHH and E-COSHH guidance sheets, and made recommendations (e.g. Cummings, Waheed, Corbett, Marlow & Williamson, 2005; O’Hara et al., 2003; Marlow Higginson & Williamson, 2004) that have led to improvements to the design, comprehensibility and usability of the sheets.

4.2 CULTURE

A few studies outlined the importance of culture when communicating with SMEs [study 4 (S4), S6, S22, S30]. They noted the necessity to understand the culture and needs of small and medium-sized firms, when designing or implementing communication techniques. One study (S4) highlighted the cultural gap that small firms believe exist between themselves and HSE. They believe that HSE is not aware of the “real world” and the difficulties in running a business.

4.3 FACE-TO-FACE COMMUNICATION

Several of the studies noted the use of face-to-face communications with small firms (S5); with small firms within the construction industry (S4); and with SMEs run by ethnic minorities (S3). However, while face-to-face and one-to-one interaction worked in generating and disseminating useful information in one of the studies (S16; NEAT, 2000), the follow-up telephone contact realised a reduction in the openness by SMEs. One study (S7, Fairman & Yapp, 2005) found that businesses were more compliant when inspectors or local training schools (in this case for hairdressers) intervened or inspected the premises.

Only one of the studies (S5) indicated that face-to-face was an effective way to communicate, but the positive interaction was limited to the visual point of reference. However, the studies did suggest that SMEs due to their size might prefer face-to-face interaction, and as shown by the Fairman and Yapp (2005) study may influence compliance behaviours.

4.4 GATEKEEPERS

One study (S26) emphasized one barrier in communicating with SMEs. They mentioned that SMEs have gatekeepers, e.g. the owner, or, in larger organisations, this could be a senior manager who is responsible for occupational health and safety, and who provide or withhold information. As they are the one in charge of categorizing information, the flow of information depends on their sense of what is or is not important. The researchers of that study, recommend the targeting of these gatekeepers in order to effect change within the organisation. They proposed also that any interventions should target the workforce directly.

4.5 INCUBATION PERIOD/START-UPS

A few studies (S13, S15, S16, S24) proposed that firms might be more receptive to regulatory input at start-up than when already established. Such an approach may be fruitful, as small businesses tend to prefer personal rather than impersonal sources of information (Kingston-Howlett, 2001). However, Kingston-Howlett (2001) stated also that the different phases of the lifecycle of the firm might necessitate different contact techniques.

4.6 HSE INFOLINE

The HSE Infoline has shown success in giving out health and safety information to firms, which would be inclusive of SMEs. Wiseman and Gilbert's (S33, 1999) study showed that callers to the infoline wanted to obtain health and safety information (64%), gain health and safety guidance or advice (32%), or were concerned about a specific problem at work (16%). The expected benefits included, hoping for useful and relevant information (77%), ensuring compliance with the law (36%), and getting information that is clear and easy to understand (27%), with the majority of callers feeling that they benefited from calling the helpline (86%). The majority of the callers (66%) to the helpline took some form of action as a result of the contact, with 32% using the information to comply with health and safety regulations.

4.7 INTERMEDIARIES

Several studies mentioned the use of intermediaries, e.g. accountants, banks and trade associations, as a way to improve communication with SMEs (S3, S5, S6, S7, S9, S12, S15, S20, S30, S31). The Haslam et al. studies (1998, 2001) showed that intermediaries have become more effective in transferring health and safety information to small firms. They proposed that while intermediaries can continue to impact positively on small and medium-sized firms, that this could not be done over the short term. Fairburn and Patel (S6, 2003) noted that intermediaries who worked with black and ethnic minority SMEs were able to promote health and safety. They recommended a long-term approach to developing relationships with

intermediaries, but noted that strong support is needed from the HSE to drive the process forward.

The COI Communications (S3, 2003) research highlighted that SMEs tend not to have a clear picture of the information and advice marketplace and do not have time to build a picture themselves. As a result they rely heavily on third-party advisors, often assuming that any important issues will reach them one way or another. Unfortunately, although intermediaries are able to relate to SMEs, there are few businesses within the sector that actually use their services. Karnon (S12, 2002) found that only 15% used accountants for advice, 4% used solicitors, 4% used business links, 4% used trade associations, and 5% used banks.

4.8 ICT AND THE INTERNET

The ease of transmitting information over the Internet is seen as a useful way to communicate with SMEs. However, few studies have assessed effectively the ease of use of this medium for SMEs, and the few that have researched it have not realised overall positive results. Karnon (S12, 2002) found that only 1.8% of organisations made use of HSE Internet services. While other research shows that many SMEs find the HSE's website difficult to navigate (NPD Associates, 2002). The Fairman and Yapp (2005), while a small study, found that the majority of its respondents did not use the Internet as a source of information.

However, many of the researchers do acknowledge that the Internet has the potential to deliver health and safety information to small and medium-sized firms (e.g. Dickety, 2005; Patel, 2003; Rakel, et al. 1999), but that the HSE should not neglect other forms of communication (Dickety, 2005; Rakel et al., 1999). It is especially important to note that access to the Internet differs by sector and region (Karnon, 2002), but that electronic tools need to be developed in the future as more workplaces and individuals are using the Internet (Tijssen & Links, 2002).

4.9 LEAFLETS

While only one study (S8) evaluated leaflets, the researchers (Ferguson et al., 2003) conducted an extremely rigorous and extensive assessment of a variety of leaflets on noise, manual handling, and musculoskeletal disorders. The results showed that the use of leaflets as an effective communicative tool could be improved by targeting the reading age to the specific requirements of the intended audience as well as ensuring that the messages are positive. The study noted that leaflets designed with a reading age of 9.1 years are seen as 'easy' to read, while leaflets designed for a reading age of 13.7 years are seen as 'fairly difficult', while those with a reading age of 15 years are classified as 'difficult.' To ensure that leaflets reach and are understood by as wide an audience as possible, they should be designed for as low a reading age as possible. To assist with the planning of leaflets, Ferguson et al. (2003) provided a user's guide to designing leaflets in their study.

Another study (S7) asked the respondents to comment on their use of health and safety leaflets. The responses were not favourable as most respondents found the leaflets to be either too complicated, too long, or appear not to be relevant to their needs. Further, the leaflets were often misunderstood or misinterpreted. These findings may link into the finding above which showed that the leaflet needed to be simpler in design and content.

4.10 LITERACY

A few studies (S2, S5, S8, S10) commented on the low literacy levels among SMEs. This is an issue that has been highlighted but needs to be more widely researched. Study 8 (Ferguson et al., 2003) showed that the leaflets that were produced by the HSE were pitched at a higher level than was needed to encourage understanding of what was required and to effect change.

This finding is one that will affect all aspects of the communication process with SMEs. If the information that is being designed is targeted at a level that is not easily understood by the recipients, then the recipients will be less able to implement and maintain satisfactory, regulatory practices.

Previous research has concluded that one-fifth of the UK population is estimated to be functionally illiterate (see Ferguson et al., 2003). However, Ferguson et al. (2003) noted also that leaflets that were redesigned to account for lower reading age levels, were found to be acceptable by individuals with higher reading levels.

4.11 NETWORKING/PARTNERSHIPS/SHARE GOOD PRACTICE

Eight of the studies evaluated (S1, S4, S6, S14, S22, S25, S28, S35) suggested that SMEs might benefit from working with other organisations, whether through networking, partnerships or by sharing good practice. However, this type of relationship needs to be clearly outlined and delineated before implementation. A review of the Good Neighbour Forum (S1) found that the SMEs wanted to interact with the larger organisations, but felt that they did not benefit from the scheme, as the larger companies were working to their own agenda, which did not promote a sense of partnership.

4.12 SAFETY AND HEALTH AWARENESS DAYS (SHADS)

Safety and Health Awareness Days (SHADs) aimed at improving the control of isocyanate exposure in motor vehicle repair (MVR), with a view to reducing the incidence of occupational asthma in that sector, were evaluated by two studies (S18; O'Hara 2005; S19, O'Hara, Davies & Sandys, 2006). The findings showed that the use of SHAD workshops was effective in raising the awareness of health and safety issues of spraying paint. Some of the results from the first study included:

- An increase in the levels of awareness of the hazards associated with sprayed isocyanate based paint application and related risk control measures
- An improvement in the awareness of the health risks associated with two-pack isocyanate paints (92% of participants)
- An intention to take action within their business on at least one aspect of health and safety addressed within the event (94% of participants).

The second study involved evaluating the 'intended behaviour' of the participants from one of the SHADs. The pilot SHAD held in Bristol was selected and follow up visits were made to 38 businesses. The findings showed that:

- In 52% of the businesses the exposure control measures had improved
- 97% of 36 businesses had either a suitably ventilated booth or spray room
- 94% of 36 businesses had suitable air fed respiratory protection equipment (RPE).

4.13 SECTOR SPECIFIC INFORMATION

Close to half of the research studies (47%; S2, S3, S4, S5, S7, S8, S10, S14, S15, S17, S21, S22, S27, S30, S31, S32, S35) highlighted the need for sector specific information when communicating with SMEs. Many small and medium-sized enterprises prefer to focus on what is essential for them, rather than having to focus on generic information that may not realise many benefits in the short or medium term.

4.14 SEMINARS

One study (S23, Rakel et al., 1999) evaluated the impact of seminars and mailshots on SMEs. They found that seminars (47%) worked better to transmit health and safety information than did mailshots (9%). However, while mailshots worked better in some sectors than others (e.g. agriculture), seminars had an overall better impact, especially in sectors, such as agriculture, construction, and motor vehicle repair (MVR).

4.15 SIMPLE LANGUAGE

Just over one-third of the research studies (38%; S2, S3, S4, S5, S6, S8, S10, S15, S16, S17, S21, S27, S29, S35) recognised the need for simple, straightforward and uncluttered language when contacting small and medium-sized firms. This is especially necessary for the smaller sized firms.

4.16 VARIETY OF SOURCES

One point that arose was the need to use a variety of sources when communicating with SMEs (S5, S6, S23). These studies stated that one single objective or activity would not be sufficient in getting messages across to SMEs. PricewaterhouseCoopers (2001) found it difficult to develop one 'model' to assist SMEs with health and safety issues due to their diverse needs. So that while, HSE and local authorities are the most common sources for disseminating information on health and safety, there needs to be an increase in the availability of information and advice on health and safety issues from sources, e.g. trade associations, that are not associated with the enforcement action (Vickers et al., 2003).

4.17 VERBAL COMMUNICATION

A few studies (S2, S6, S20, S27) noted that small firms tended to have a higher dependence on verbal communication within the working environment, and would be more receptive to verbal communication from outside sources.

5 DISCUSSION

The present project involved evaluating the more recent research (1998-2006) on communicating with SMEs. The research studies identified used a variety of methodologies and some of them were more successful in generating interest in obtaining participants for the studies than others. The studies therefore are not consistent in approach or in findings. However, information that has been obtained as part of a research process can highlight the difficulties in contacting, interacting with and changing behaviour patterns in the target population, as the evaluated research studies have revealed.

Research on the SME sector has shown constantly that there are no unique SME factors (Wright 1998), and that time and resources are prime concerns of small and medium-sized enterprises. They have limited people resources and may well have limited financial resources so any form of communication must gain their attention immediate or it may be lost forever. The difficulties in reaching SMEs is well documented, and this difficulty is further hindered when SMEs often focus only on the core issues that are linked to selling and remaining compliant; which impacts their receptiveness to communication (COI Communications, 2003). Marsden, Collier, Wright and Hopkins (2002) further note that they tend to engage in a reactive approach to searching for health and safety information and guidance. They are therefore not the easiest of audiences with which to communicate with a view to engaging them in behaviour modification or change.

The first part of the evaluation was to establish the type of techniques that were used in the research studies. As Table 1 showed the studies assessed as part of the present research did not use a variety of techniques. The most used technique was interviews (59% of studies), followed by surveys (31%), with comparable amounts using discussion groups (13%), focus groups (13%) and workshops (13%). Only one study evaluated leaflets, as did two for seminars, one for mailshots, and two for organisational visits. Additionally, these were techniques that were used to mainly *get information* and not interact with or change behaviour. Further, only eight of those studies had an evaluative component as part of the research process. It is difficult therefore to state that one technique would be more effective than another. The data obtained is useful in understanding further the difficulties involved in disseminating information and promoting change within SMEs. Stephens et al. (2004) had great difficulties in obtaining willing participants for their study, and in the end had to rely on personal contact to obtain a sample. While the data generated could not be representative of the wider SME sector, they are data that are useful in understanding 'perceptions' and 'attitudes,' and provide an opportunity to move forward.

The second part of the evaluation involved looking for any consistent patterns across the studies. The findings showed that 17 different methods and factors emerged as ones that were used in gaining different levels of success when communicating with SMEs. The different methods and factors were expected as previous research has highlighted that no single form of communication would work with all businesses (Doyle & Oldman, 2003), especially taking into account the diversity of the sector, and that SMEs operate in a fluid and dynamic environment (Dickety, 2005). However, none of the methods or factors that were highlighted was used by more than 50% of the studies, and would suggest that no one method or factor could be seen as the one that would present more consistent or quality results than any other.

While all of the methods and factors are important, there were two factors that were raised across many of the studies. These were the need to ensure that communication is *specific* to the sector and is as *simple* as could be; clearly defining what is required of them. The literacy level of the sector has been highlighted as well as the lack of resources (e.g. financial, human). These conditions would work against communicating effectively with SMEs, and should be factored

into any programme or intervention that is aimed at this sector. Additionally, a few studies outlined the predominance of verbal communication within small businesses. Some studies noted that literacy levels tended to be low among SMEs, and this may contribute to the high prevalence of verbal communication within SMEs. While the results from the evaluation should not be viewed as definite, these factors were raised across many of the studies and suggest that they are real concerns for small and medium-sized enterprises.

The HSL has already acted on addressing some of these concerns, for example, the HSE has commissioned sector specific research, such as those done on the COSHH Essential guidance sheets (e.g. Cummings et al., 2005; Marlow et al., 2004). These evaluations showed that the sector specific guidelines were well received by the participants within the respective specific industries. It is not known however if these findings are impacting on research in other areas when communicating with SMEs.

Research assessing risk assessment found that SMEs were engaging in good practice when assessing risk (O'Hara, Dickety & Weyman, 2000). The research found also that visits from inspectors were seen as one way to get information that could benefit the business, and that the HSE should engage with firms in a more advisory capacity. This research showed that SMEs do take on board those concerns surrounding health and safety in the work environment, and that the reduction or eliminating of risks is of concern to small businesses.

The Internet is viewed as one easy and quick way to engage with SMEs. However, as the present evaluation has shown the Internet is not a strong source of information for SMEs at the present time. So that while more firms are connecting daily to the Internet, there is a serious gap between Internet access and Internet access as a way to get information from the government and its agencies. Again literacy levels, ease of use with ICT and knowing where to look are all variables that impact on encouraging SMEs to see the Internet as a viable source for communicating with regulatory bodies and other agencies. The Internet remains one source of information and one source for information for SMEs, but at present, it should not be seen or promoted as the dominant source.

The use of intermediaries was proposed as one way to get health and safety information across to SMEs. For instance, Stephens et al. (2004) suggest that SMEs should be provided with an occupational health (OH) manager or give them access to a specialist OH consultant who is readily identifiable and easy to contact. Walker and Tait (2003) have listed a variety of intermediaries who work with small firms and the different ways that they assist them. While many SMEs, especially the smaller firms, do not make full use of intermediaries at present, they are seen as one way to ensure the effective promotion of health and safety within smaller business. Research has found that SMEs have difficulty in contacting the HSE for fear of punitive measures or because they feel that they cannot relate to them. Therefore an outside body should help to get the message across in a more relaxed environment for the SME. It has been proposed also that business incubators are an ideal way to ensure that health and safety is delivered to firms at the start-up level. Firms who work with a business incubator can be in the relationship from six months to five years, a significant amount of time to ensure that health and safety is integrated into a necessity for business, comparable with having a business plan or keeping accurate VAT receipts.

An overview of business incubators shows that the incubation process does not have a set period of time, and clients' time scales may vary from six months to six years, often depending on the industry sector. Research has found that start-ups using business incubation environments have a higher survival rate than the UK average. More than three out of four incubator start-ups are still in business after five years, compared to one in three that did not start with incubation. They have a survival rate of 90 per cent compared with a UK average of 33 per cent over five

years for start-ups not using external support (The Oxford Trust, 2003⁵). A full list of incubation environments, services and success rates can be found at the UKBI's website (<http://www.ukbi.co.uk>). The list shows that a total of 318 incubators were in existence as at March 2006 in all areas of the UK, inclusive of Ireland, Scotland, Wales, London and its environs, the Midlands, the North West, the South East, and Yorkshire and the Humber.

Another resource in respect of contacting firms at start-up is The Prince's Trust⁶. The Prince's Trust Business Programme helps 18-30 year olds to start businesses. It particularly focuses on those who are unemployed, under-skilled, within or leaving the criminal justice system or leaving care. This may be another source to ensure that health and safety information is communicated consistently and to a younger audience, whom research has shown is more vulnerable in the workplace.

One finding that may prove useful in influencing SMEs, was that over half of all MBA graduates work in SMEs, but that the provision for a health and safety component on MBA courses is limited (Dickety, 2005). Due to the impact that staff has on SMEs, the HSE may wish to explore more fully the feasibility of encouraging universities to include health and safety as a necessity on business courses.

The present project did not find one definitive communication technique but has highlighted several methods and factors that should be taken into account when engaging with small and medium-sized enterprises.

⁵ *The Oxford Trust Annual Innovation Census report on start-up companies, February 2003* - http://www.oxtrust.org.uk/POOLED/articles/bf_newsart/view.asp?Q=bf_newsart_50538

⁶ <http://www.princes-trust.org.uk/>

6 RECOMMENDATIONS

There are several recommendations that have arisen from the research. These have been previously stated, and HSE may already be engaged in many of these recommendations, but they are some of the better ways in promoting consistent and comprehensive communication to SMEs.

6.1 THE HEALTH AND SAFETY COMMUNICATION, AS MUCH AS POSSIBLE, NEEDS TO BE SECTOR SPECIFIC

Many of the studies suggested that SMEs prefer sector specific information. This may be due to the fact that they have limited resources and would need to focus in quickly on what is relevant to their needs.

6.2 CONSIDER THE LITERACY LEVELS WHEN DESIGNING MATERIALS (E.G. LEAFLETS, QUESTIONNAIRES), AND AS SUCH THEY SHOULD BE AS SIMPLE AS POSSIBLE

While extensive research has not been done in this area, the research that has been completed has highlighted that literacy levels could be a contributing factor in the difficulties in communicating with SMEs. HSE needs to ensure that its communication is targeted at the correct level. The content of HSE's information, i.e., its relevance and suitability to the recipient needs to be taken into account, and adapted accordingly, if possible.

As noted previously, individuals with a higher reading age do not find it problematic to receive information that is targeted to lower reading age levels (Ferguson et al., 2003). Individuals wish to understand as quickly as possible information on which they may need to act, so leaflets that are designed to provide information, especially technical information, in the simplest terms, may improve the use of written material by SMEs.

6.3 DEVELOP AND MAINTAIN LINKS WITH INTERMEDIARIES

Intermediaries can assist in communicating health and safety information to SMEs. Accountants and Banks and Health and Safety Consultants have had some success in this respect. New and different intermediaries may be used, such as The Prince's Trust, local training schools, trade associations, and business incubators. Business incubators are viable sources, as they are responsible for moulding and directing new businesses, and those start-ups that use business incubators have a longer survival rate than other businesses.

6.4 THE CONSISTENT USE OF A DATABASE TO RECORD INTERVENTIONS THAT HAVE WORKED WITH SMES

The evaluation has shown that there is no one technique that stands out from all the others. In order to adequately (and consistently) determine those techniques that give consistent and quality results, HSE should consider consistently using a database to record those interventions used on SMEs and their success rate. The database could catalogue those interventions that have worked, for example, by size, industry, ethnicity and gender. Over time HSE would have a record of the communications techniques that would generate the best results. This would eventually highlight any consistency in communication practices across SMEs.

It is known that the HSE has in place databases such as the Corporate Operational Information System (COIN) and the FOCUS Data Guide. Information may be available already in these databases to better track and evaluate the effectiveness of interventions.

6.5 EVALUATE PROGRAMMES, INTERVENTIONS AND COMMUNICATION TECHNIQUES THAT ARE USED WITH SMES

Other researchers have recommended the evaluation of programmes, interventions and techniques (e.g. Rakel et al. 1999). The evaluation needs to be considered at the planning stage of a study, to be able to determine if what the researcher is planning to accomplish has been accomplished. This is essential if HSE wants to determine those communication techniques that work best with SMEs. Without an adequate and structured evaluative process it is difficult to determine what works from what does not. Small and medium-sized enterprises constitute close to four million businesses, they are in a diverse range of industries and regions. They can employ from 0 employees to 249. It is therefore not appropriate to assume that because, for example, workshops have worked with one set of SMEs that they would work with all 3.9 million.

Rakel et al. (1999) provided an overview of the steps that need to be considered during evaluation. See Appendix 6. It is important to note that an evaluation is carried out to assess whether or not an intervention has worked, this may include, for example, examining behaviour change, changes in working practices or changes in environmental conditions. If changes occur and are sustained in a substantial number of participants, then the intervention may be said to have worked, if changes do not occur, then the intervention needs to be re-examined. The evaluation on the Bristol SHADs (O'Hara et al., 2006) was interested in determining if the participants had made their stipulated changes arising from their attendance at the SHAD. This entailed observing the premises, and completing an evaluation form with specific topic areas such as *process and engineering control strategy, personal protective equipment (PPE) strategy, and work organisation and methods*. In this study 52% of the participating organisations had implemented changes so the intervention can be deemed to have affected change.

7 APPENDICES

APPENDIX 1 OVERVIEW OF BUSINESSES' METHODS OF ONLINE INTERACTION WITH GOVERNMENT

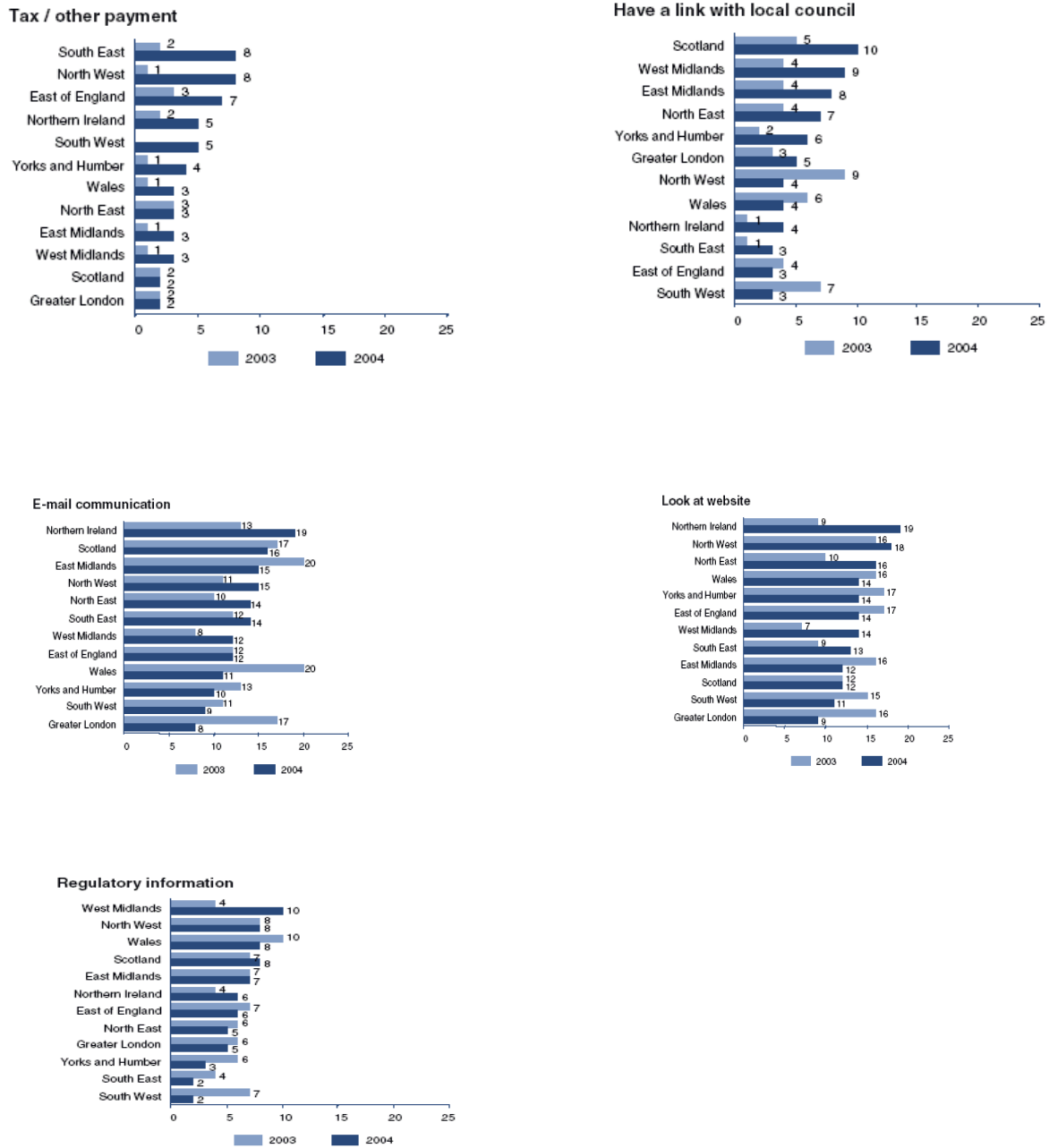


Figure 2 Methods of online interaction with government by all businesses (%) over 2003 and 2004 ($N = 2,716$)⁷

NB. Questions on which the responses are based: “Do you have any online interaction with regional, local or central government via...?”

Base: All businesses

⁷ Source: DTI (2004), p.113

APPENDIX 2 THE 3RS PROGRAMME

3Rs programme

HSE's 3Rs programme ('the right information, to the right people, in the right way') was a risk communication research programme seeking to optimise the value of health and safety messages reaching the workplace by developing more effective risk messaging and delivery techniques. This programme involved a range of different research projects conducted between 1999 and 2000. The research was commissioned to investigate concerns within HSE that risk messages were ineffective in helping users control the risks from chemicals. The overall purpose of the 3Rs programme was to help improve the impact and effectiveness of health and safety messages by identifying and disseminating good risk communication principles and approaches for work related risks; and to apply these principles (through research, development and testing), to messages on chemical hazard, risk and control measures to improve understanding by people using chemicals at work.

HSL's Human Factors Group are looking at the lessons that can be applied to the design of communication interventions by HSE.

APPENDIX 3 COMMUNICATING WITH KOREAN BUSINESSES IN KINGSTON

HSL's SOFS are involved currently in work for Kingston's Local Authority (LA), which aims to develop a more proactive approach to supporting the Korean business community in relation to engaging with and influencing the businesses regarding occupational health and safety. In collaboration with HSL, a project is underway to provide insight into levels of occupational health and safety (OHS) knowledge and practice amongst Korean businesses in Kingston, and to identify pathways and methods of engaging, communicating with, and influencing these businesses regarding OHS. This work will form the evidence base for future interventions with the Korean business population involving Kingston LA and the HSE, and can contribute to similar initiatives for other communities in other LAs. Koreans in Kingston form the largest population outside of Korea, operating an extensive variety of businesses, many of which are enforced by the Local Authority. The majority of these businesses are either small or medium-sized.

APPENDIX 4 COMMUNICATING WITH ORGANISATIONS WITH RESPECT TO OCCUPATIONAL ASTHMA

One research project included a large-scale literature review examining psychosocial contributors to occupational asthma (OA) and psychosocial barriers to OA diagnosis and management. This included identifying any variance of barriers by industry sector and organisational size. Whilst no hard and fast rules were observed for how such barriers varied according to organisational size, some broad trends could loosely be applied to differentiating micro, small and medium companies from larger organisations. For example, smaller companies appear less aware of occupational health risks with workers at the front line least so. Formal risk communication tends to be more effective in reaching larger organisations and is sometimes assumed by smaller companies to preclude them on account of their size. Resource limitations experienced by smaller organisations could account for their difficulties in funding health and safety representation in house, offering health surveillance and adequate occupational health provision to their employees, and investing in effective engineering or Personal Protective Equipment PPE solutions. Resultant constraints in employees' ability to control risk and limited redeployment and retraining options may leave them little option other than to adopt a fatalistic attitude to the risks they face. Recommendations for countering such barriers included the formation of 'think tank' partnerships across SMES, shared health and safety champions, shared occupational health provision and the formation of a state funded 'job bank' to improve the redeployment and retraining options for employees from smaller organisations suffering job-related occupational health conditions. Risk communication recommendations also underscored the importance, relevance and ease of interpretation through being tailored to industry sector and organisational size characteristics. To balance resource constraints as often encountered amongst smaller organisations with the need to convince employees that the risks communicated are personally relevant, interventions were recommended that were based on employee type. This included, for example the production of a video exposure monitoring tape for MVR workers to which all MVR workers working in similar environments, and occupying the same demographic, could relate.

Another project includes a systematic review of behavioural interventions for dermal and respiratory hazards. Implicit within the remit of this review is to provide recommendations that can be realistically used by small and medium sized enterprises.

APPENDIX 5 OVERVIEW OF REPORTS ASSESSED

Table 2 Evaluation criteria by research reports assessed

No.	Author(s) *	Report # §	Size of Firm†	Resources for Interaction	Type of Communication	Outcomes/Findings	Suggestions/Proposals that May Change Behaviour
1.	Beswick & Sprigg (2001)*	WPS/00/06	S	Contact by telephone or letter to individuals who had attended the Good Neighbour Forums over 1998-2000	Focus Groups (N = 15)	<ul style="list-style-type: none"> • Good Neighbour Forums had little impact on the H&S practices of the small businesses participants • Good Neighbour Forums raised expectations of the attended, but did not deliver • Small companies showed a liking for partnerships and working together • Need to modify the present format of the Forums 	<p>To ensure success of Good Neighbour Forums</p> <ul style="list-style-type: none"> ◆ Good communication and co-ordination is needed from HSE ◆ More time is needed for dialogue between small contractors and larger organisations/partners ◆ Increase the focus on small contractors, by inviting more of them and ensuring that the presentation is applicable to them ◆ Consider smaller, more 'sector specific' forums where contractors can talk to representatives of HSE - ask questions, share good practice

* Studies that have included an evaluation component as part of its research process; § CRR = Contact Research Report, RR = Research Report; † MM = Micro-sized firm, S = Small, M = Medium-sized, L = Large

Appendix 5 continues

Appendix 5 Overview of reports assessed (cont.)

No.	Author(s) *	Report # [§]	Size of Firm [†]	Resources for Interaction	Type of Communication	Outcomes/Findings	Suggestions/Proposals that May Change Behaviour
2.	Biggs & Crumbie (2000)	CRR 278	S	Yellow pages to select, telephone calls to confirm	Face-to-face interviews (N = 521) Semi-structured interviews (N = 15)	<ul style="list-style-type: none"> • Small firms difficult to contact • Firms working with chemical products - Low reading age (avg. 12 years) • Dominant verbal communication • Assume a very low level of reading ability in small firms and recognise that a "verbal" rather than "written" culture predominates • Do not assume the manager is highly knowledgeable • Container labels appear to be a major source of information • A high proportion of those having experience of an accident involving chemical products claim that it has made them more safety conscious. 	<ul style="list-style-type: none"> ♦ Make Safety Data sheets easier to understand ♦ Do not assume that managers have knowledge of chemicals or of H&S

* Studies that have included an evaluation component as part of its research process; [§] CRR = Contact Research Report, RR = Research Report; [†] MM = Micro-sized firm, S = Small, M = Medium-sized, L = Large

Appendix 5 continues

Appendix 5 Overview of reports assessed (cont.)

No.	Author(s) *	Report # [§]	Size of Firm [†]	Resources for Interaction	Type of Communication	Outcomes/Findings	Suggestions/Proposals that May Change Behaviour
3.	COI Communications (2003)		S, M	Direct contact with participants	Group discussions (<i>N</i> = 20) Case Studies (<i>N</i> = 15) Interviews (<i>N</i> = 15)	Communication focuses around two key dimensions: Fixed ↔ Interactive (fixed media - reading, listening, watching; interactive - ability to ask questions and link to business) & Traditional ↔ New Media (traditional - printed materials, telephone conversations, audio, video; new media - CD-ROMs, Internet, email)	Effective Communication - Concise; simple and straightforward; relevant and tailored to business; clear issues; highlight benefits; clear expectations (what they need to do; easy to access and store, consistent format. Ethnic SMEs prefer face-to-face communication
4.	Dickety (2005)	RAS/05/02	S	Database, citation and HSE on-line facilities	Literature review of material relating to H&S in small firms (<i>N</i> = +185 identified articles)	<ul style="list-style-type: none"> • HSE is a well-regarded provider of quality H&S information • Small firms will make increasing use of ICT to meet their needs • Small firms are less likely to engage in any formal training • Small firms hire fewer people with direct H&S qualifications 	<ul style="list-style-type: none"> ◆ Small firms prefer simple, non-technical language & information specific to their requirements & sector ◆ Information provided at minimal or zero cost

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Appendix 5 continues

Appendix 5 Overview of reports assessed (cont.)

No.	Author(s) *	Report # [§]	Size of Firm [†]	Resources for Interaction	Type of Communication	Outcomes/Findings	Suggestions/Proposals that May Change Behaviour
4.	Dickety (2005) <i>cont.</i>					<ul style="list-style-type: none"> • Provision for a H&S component on MBA courses limited, but over half of all MBA graduates work in SMEs • Limited literature on the impact of networks, informal alliances and the potential for ‘Good Neighbour Schemes’ on small firms • Small firms prefer personal consultation & one-to-one contact than written communication • Small firms reluctant to ask HSE for H&S information as seen as an enforcement agency • ‘Culture gap’ between small firms and government, civil servants not from the ‘real world’ 	<ul style="list-style-type: none"> ◆ ICT one way to communicate with small firms, HSE should not neglect other forms of communication, e.g. construction sector research shows a preference for face-to-face consultation ◆ ICT may suit some sectors over others e.g. service/financial ◆ Small firms sceptical about government led training initiatives and competence certification - improvements could be made by: <ul style="list-style-type: none"> a) Improving the quality and relevance of courses b) Making them sector specific c) Focus on geographical areas of firms and of skills gaps d) Reviewing the life-long learning philosophy

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Appendix 5 continues

Appendix 5 Overview of reports assessed (cont.)

No.	Author(s) *	Report # [§]	Size of Firm [†]	Resources for Interaction	Type of Communication	Outcomes/Findings	Suggestions/Proposals that May Change Behaviour
4.	Dickety (2005) <i>cont.</i>					<ul style="list-style-type: none"> • The seminar was a more effective contact technique at encouraging change than mailshots 	<ul style="list-style-type: none"> ◆ For small firms to benefit from forming networks and formal alliances, full support & participation of all stakeholders needed ◆ Contractual relationships that impose a H&S requirement that work towards improving the occupational health standards of small firms ◆ Supply-chain relationship influence small firms to meet the H&S standards of a larger firm to retain business connection ◆ HSE's image as an enforcer needs to improve for inspectors to have more success in delivering information ◆ Fund providing organisations can influence small firms, esp. at the start-up stage

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Appendix 5 continues

Appendix 5 Overview of reports assessed (cont.)

No.	Author(s) *	Report # [§]	Size of Firm [†]	Resources for Interaction	Type of Communication	Outcomes/Findings	Suggestions/Proposals that May Change Behaviour
5.	Doyle & Oldman (2003)		S	Previously published research	Evaluation of communication with small firms		<ul style="list-style-type: none"> ◆ No single approach to communicating with businesses ◆ Small firms prefer simple, non-technical language and information that is specific to their requirements ◆ Use of intermediaries ◆ Face-to-face communication is more effective than written ◆ Information needs to be widely available from a variety of sources
6.	Fairburn & Patel (2003)	5019674-R1	S	Review of research	Telephone interviews Face-to-face interviews	<ul style="list-style-type: none"> • Oral culture • Low literacy levels 	<ul style="list-style-type: none"> ◆ Culture and needs of small firms need to be understood and recognised as different from large firms ◆ FOD should increase partnerships with intermediaries ◆ Simple tools are more effective at present

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Appendix 5 continues

Appendix 5 Overview of reports assessed (cont.)

No.	Author(s) *	Report # §	Size of Firm †	Resources for Interaction	Type of Communication	Outcomes/Findings	Suggestions/Proposals that May Change Behaviour
7.	Fairman & Yapp (2005)	RR 366	S, M	Businesses within local authorities selected as case studies	Face-to-face interviews (N = 41)	<ul style="list-style-type: none"> • Compliance viewed reactively, not as a continuous process • Non-compliance not recognised by many small businesses • Non-compliance mainly due to lack of knowledge and awareness about H&S requirements • Increased compliance when local authority/training colleges intervenes & inspects • Leaflets not always read, <i>either as 'too complicated,' too long, or appear not to be relevant. When read often misunderstood and misinterpreted, did not always improve knowledge</i> • Intermediaries only approached when information needed • Many do not use the Internet as a source of information 	<ul style="list-style-type: none"> ◆ Face-to-face interventions with inspectors ◆ Intermediary such as local training college for vocational work (hairdressing) may raise awareness of occupational health and safety requirements ◆ Written information from Trade Associations or local colleges seen as more trusted and is more targeted and relevant to small businesses ◆ Training courses and seminars are effective if targeted and sector specific ◆ Formal enforcement activity is important in ensuring compliance

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Appendix 5 Overview of reports assessed (cont.)

No.	Author(s) *	Report # §	Size of Firm †	Resources for Interaction	Type of Communication	Outcomes/Findings	Suggestions/Proposals that May Change Behaviour
8.	Ferguson et al. (2003)*	RR 093		Assessments of HSE leaflets (noise, manual handling)	<p><i>Study 1</i> Leaflets on noise at work (N = 10) Leaflets on manual handling/musculoskeletal disorders (N = 13) Comprehension analysis participants (N = 21)</p> <p><i>Study 2</i> Leaflets noise (N = 2) Leaflets manual handling (N = 2) Examine relationships participants (N = 445)</p> <p><i>Study 3</i> Examination of quality of life participants (N = 11)</p> <p><i>Study 4</i> Positive vs negative frame Leaflets (N = 3) Participants (N = 97)</p> <p><i>Study 5</i> Effects of framing Leaflets (N = 4) Participants (N = 451)</p> <p><i>Study 6</i> Leaflets (N = 40) Participants (N = 98)</p>	<ul style="list-style-type: none"> • HSE leaflets have an objective reading age higher than desired with a comprehensibility suited to undergraduates • Workers intentions to adopt safe working practices influenced by usability and usefulness of the risk communication leaflets • A ‘positive’ form of communication) long-term benefits of safe working practices) generally more influential than ‘negative’ form (negative health outcomes such as back pain or deafness) 	<ul style="list-style-type: none"> ◆ Communication design is a very important consideration when trying to influence safe working practice ◆ When targeting specific groups for an intervention, information on their prior-exposure and past-behaviour should be taken into account ◆ In designing leaflets an equal balance between consequences and solutions should be maintained

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Appendix 5 continues

Appendix 5 Overview of reports assessed (cont.)

No.	Author(s) *	Report # [§]	Size of Firm [†]	Resources for Interaction	Type of Communication	Outcomes/Findings	Suggestions/Proposals that May Change Behaviour
9.	Haslam & James (2001)*	CCR 389			Four focus groups Three workshops	<ul style="list-style-type: none"> • HSE’s culture focused on field activity and many projects unknown and outside scope of policy and core priorities • Progress ‘fragile’ but easily reversed • An intermediary-based approach can work within HSE • Systems and procedures need to be improved • Intermediaries have passed on H&S information to small firms 	<ul style="list-style-type: none"> ♦ The need for organisational change for HSE and FOD to effectively combine regulatory and information provision roles ♦ Project should be more visible in FOD ♦ Establishment of an information system to record intermediary-related data

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Appendix 5 continues

Appendix 5 Overview of reports assessed (cont.)

No.	Author(s) *	Report # [§]	Size of Firm [†]	Resources for Interaction	Type of Communication	Outcomes/Findings	Suggestions/Proposals that May Change Behaviour
10.	Haslam et al. (1998)*	CCR 185			Review of reports Interviews Survey (N = 100) Direct contact (N = 19)	<ul style="list-style-type: none"> • Initiatives with SMEs hindered by lack of strategic direction and resources • Traditional methods of inspection, influence through trade associations, or by appeal to better management unlikely on own to be successful in reaching lower risks firms • Joint initiatives with e.g. Inland Revenue or Customs may be more effective in getting H&S information to small firms • Training & Enterprise Councils employ H&S specialists and are a useful source to promote H&S 	<ul style="list-style-type: none"> ◆ Scope for HSE to discuss start-ups with TECs and Enterprise Agencies to identify, publicise and support example of best practice ◆ Small firms require specific information ◆ HSE written information needs to be at a lower level
11.	Internal Audit Unit (1998)		S, M, L	Audit	Evaluating service	<ul style="list-style-type: none"> • Good use of service • Achieved its objective 	HSE books, InfoLine and HSE's Information Centres need to keep their communication information up to date.

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Appendix 5 continues

Appendix 5 Overview of reports assessed (cont.)

No.	Author(s) *	Report # [§]	Size of Firm [†]	Resources for Interaction	Type of Communication	Outcomes/Findings	Suggestions/Proposals that May Change Behaviour
12.	Karnon (2002)	ERG/02/03 (HSL)	MM, S, M	Random selection from the Dun and Bradstreet databases of enterprises (SIC code and proprietorship were used to split the sample in the same proportion as small businesses in the UK)	Telephone Survey (N = 2637)	<ul style="list-style-type: none"> • Only 1.8% of organisations used HSE Internet services • 2.5% of SMEs felt COSHH regulations impeded the success of their business • SMEs used for advice: <ul style="list-style-type: none"> - accountants (15%) - solicitors (4%) - business links (4%) - trade associations (4%) - banks (5%) • Organisations access to the Internet in the construction sector <ul style="list-style-type: none"> - < 50% of micro - over 90% of medium • In the agricultural sector just over 40% of organisations in the North West have access to the Internet but close to 90% do in the South East • Between 5% - 15% of organisations could not find government Internet services 	<ul style="list-style-type: none"> ◆ SMEs are less likely than larger firms to have access to the Internet ◆ Government needs to improve its communication and/or content of its Internet services to increase usage by SMEs ◆ Research was done in 2002 and close to 80% of organisations stated that they would access information from government Internet services within a year

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Appendix 5 continues

Appendix 5 Overview of reports assessed (cont.)

No.	Author(s) *	Report # [§]	Size of Firm [†]	Resources for Interaction	Type of Communication	Outcomes/Findings	Suggestions/Proposals that May Change Behaviour
13.	Kingston-Howlett (2001)	CRR 330	S	Contact through HSE inspector	Semi-structured interviews (<i>N</i> = 3)	Development of case studies - Findings showed: <ul style="list-style-type: none"> • H&S did not appear to be subject to the same feed forward and feedback communication as those production essential variables which affect quality • One firm had operated the same way for 20 years and was not aware of compliance information, especially as it related to H&S • Hazards not recognised as hazards • Lack of training 	<ul style="list-style-type: none"> ◆ Firms may be more receptive to regulatory input at start-up than when established ◆ Different phases of the lifecycle of the firm may necessitate different contact techniques ◆ Small businesses prefer personal rather than impersonal sources of information

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Appendix 5 Overview of reports assessed (cont.)

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14.	Marsden et al. (2002)		S, M, L		Discussions (<i>N</i> = 33)	<ul style="list-style-type: none"> • Reactive approach to searching for H&S information/guidance • Expectations that HSE will/should alert them to new publications or regulatory requirements that relate to them • Information sought is based on hazards linked to business • Rely on consultants, networks or trade associations for information on new requirements/publications • HSE first avenue to get H&S guidance • Mixture of general and specific guidance is needed • Organisations use Internet to facilitate searches • New businesses sent information pack that covers H&S guidance 	<ul style="list-style-type: none"> ◆ Development of a web based tool that develops a customer profile and suggests relevant publications ◆ Develop a paper based matrix of publications against activities/hazards ◆ Development of sector specific information ◆ Some organisations cross sectors and the Standard Industry Classification does not identify all the hazards associated with them, and should not be the only tool used to determine how to target them

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15.	McKinney (2002)	CRR 420	S		Random survey ($N = ?$) Telephone interview with intermediaries ($N = 11$) Telephone interviews with intermediaries ($N = 19$) Ten focus groups ($N = 46$)	<ul style="list-style-type: none"> • Many small firms have not experienced a serious work-related injury, and do not know others who have experienced injury so H&S tends to be a low priority • Health and safety is perceived as involving extensive amounts of regulation • Afraid to call HSE for advice for fear of repercussion • Some intermediaries were willing to provide initial advice to small firms 	<ul style="list-style-type: none"> ◆ HSE could use event of business start up to communicate with new small firms (H&S one component of many with which new businesses have to deal) ◆ Most start-ups contact only their bank to seek guidance ◆ More advisory, less punitive role, by HSE needed, and inspectors listen to concern rather than penalise for ignorance ◆ Small firms prefer one document that lists sector specific H&S information in a clear/ understandable form ◆ Updates to H&S regulation sent directly by HSE (sector specific) ◆ HSE inspectors moderate advice to size of firm/sector

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Appendix 5 Overview of reports assessed (cont.)

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16.	Neat (2000)*		MM, S	In-house database	Visit to organisation, one-to-one consultation, completion of questionnaire (<i>N</i> = 200) Follow-up telephone calls Discussion group	<ul style="list-style-type: none"> • All organisations responded positively • Sole traders felt that H&S did not apply to them • Follow up interviews showed that under 50% of companies focused on the H&S information that was left by advisers 	<ul style="list-style-type: none"> ◆ HSE's H&S booklets should be non-threatening, but authoritative, stressing the need to comply with the Health & Safety at Work Act ◆ Health and safety should be incorporated into business planning ◆ HSE is regarded less as a source of information and more as a enforcer of regulations and red tape ◆ Information booklets should be sector specific ◆ Most small businesses cannot absorb all the information on legislative requirements and concentrate on the obvious issues

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17.	NPD Associates (2002)		S, M, L	Direct contact with organisations (focus groups) HSE's database of <i>Essentials</i> ' customers (interviews)	Focus groups (<i>N</i> = 25) Telephone interviews (<i>N</i> = 150) Face-to-face interviews (<i>N</i> = 40) Telephone interviews (<i>N</i> = 150)	<ul style="list-style-type: none"> • 45% of SMEs buy <i>Essentials</i> with only 3% having fewer than 9 employees • Very small firms do not use <i>Essentials</i> as an introduction to H&S 	<ul style="list-style-type: none"> ◆ Smaller firms preferred more sector/industry specific information, rather than extensive amounts of generic information to which they could not relate ◆ Simple free guide with checklist as to basic H&S obligations ◆ Knowledge of HSE's <i>H & S Starter Pack</i> is very limited and if known, difficult to find on HSE's website

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18.	O'Hara (2005)	SOFS/05/1	S, M, L	Participants at Safety and Health Awareness Workshop (SHAD)	Questionnaires (N = 233)	<ul style="list-style-type: none"> • The workshop had increased levels of awareness of the hazards associated with sprayed isocyanate based paint application and related risk control measures • 92% of participants stated that the event had improved their awareness of the health risks associated with two-pack isocyanate paints • 94% of participants stated the intention to take action within their business on at least one aspect of health and safety addressed within the event they attended 	♦ The use of SHADs should continue
19.	O'Hara, Davies & Sandys (2006)	SOFS/06/02	S, M	Follow-up with attendees of SHAD	Interviews (N = 36) Site visits	52% of bodyshops had taken action to improve exposure control	

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20.	O'Hara & Dickey (2000)	RAS/00/16	S	Recruitment of small firms by market research agency	Face-to-face interviews (N = 12) used to compile case studies	<ul style="list-style-type: none"> • Common sense seen as fundamental to H&S knowledge • Verbal information dominates communication • Written information limited to container labels and safety posters/signs • Informal contacts used for information • Reluctance to contact HSE for information for fear of inspection • Intermediaries (e.g. banks, trade publications) used as source of information 	<ul style="list-style-type: none"> ◆ Chemical suppliers key source of information, but barriers to flow of information within the chain from supplier to end-user ◆ Intermediaries could be used to provide health and safety information (e.g. trade associations, trade publications, insurance companies, local authorities)
21.	Patel (2003)	5019674-R2	S	Previously published research	Evaluation of good practice		<ul style="list-style-type: none"> ◆ HSE uses written contact widely ◆ The Internet has potential to deliver H&S information ◆ Small firms prefer information in simple, non-technical language that is specific to their needs

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22.	PricewaterhouseCoopers (2001)		S	Direct contact with firms`	Conference Five workshops (N = 100+)	Key barriers to SMEs <ul style="list-style-type: none"> • Resource impact • Awareness • Information/training • Profile • Culture • Complexity of legislation • Lack of guidance 	<ul style="list-style-type: none"> ◆ Increase awareness of regulatory obligations ◆ Sector specific information ◆ Education and training ◆ Support from local authorities and government ◆ Difficult to develop one 'model' to assist SMEs with H&S issues due to their diverse needs ◆ Can be achieved through Partnership schemes (inclusive of mentoring) ◆ Advisory initiatives ◆ Workshops

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23.	Rakel et al. (1999)*	CRR 212	MM, S, M, L	Direct contact with companies (inspector led)	Seminars (<i>N</i> = 235) Mailshots (<i>N</i> = 689) Inspections (<i>N</i> = 67) <i>N</i> = Number of companies	<ul style="list-style-type: none"> • Seminars (47%) had a higher level of action taken than did mailshots (9%) • Inspections and seminars are more effective than mailshots in stimulating action • Mailshots work better in some sectors than others (e.g. agriculture) • Seminars have a more positive impact on some sectors, such as agriculture, construction, and MVR, but less on nursing homes 	<ul style="list-style-type: none"> ◆ ‘Force-feeding’ of information to companies not best approach as information may not be needed when sent. ◆ HSE organise way for companies to assess or request information when needed (Internet as one source) ◆ Companies could be targeted by use of best mix of contact techniques with a ‘corporate image’ to highlight the importance of regulatory information ◆ Mailshots and seminars should be consistent across HSE ◆ Compilation and maintenance of a database of SMEs to avoid use of external mailing lists/ improve consistency of contact

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24.	Redwaters Limited (2004)		S, M	Intensive marketing to business advisers	Workshops (N = 128)		♦ Approach business support organisations to gain access to clients at the incubation level - promote importance and commercial importance of H&S advice from the onset
25.	Scotney (2001)*	516-201-R1	S, M	Organisations in the Tyneside area	Interviews with a random sample to assess health & safety needs and expectations of Tyneside Training and Enterprise Council (TEC) initiative (N = 10) Questionnaire administered to companies involved in Health & Safety Key Standards (HASKS) initiative (N = 42) Telephone interviews with firms not involved in HASKS (N = 21)	Improvements in H&S after starting the initiative <ul style="list-style-type: none"> • Initiative found out by: <ul style="list-style-type: none"> - Personal contact (76%) - Mailshot (7%) - Other reasons e.g. TEC seminar, recommended by another company (17%) • Of interest to firms: <ul style="list-style-type: none"> - Access to a personal advisor (81%) - Advice tailored to company (48%) • Reasons for non-involvement <ul style="list-style-type: none"> - Company resources (48%) - Alternative sources of advice (29%) 	Positive findings suggested that it was feasible to extend the programme

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26.	Stephens et al. (2004)	RR 257	S, M	- Liase with intermediaries with direct links to SMEs (believed $N > 850$) - Cold calling (Yellow pages, Internet; $N = 650$)	Survey (Discussion Groups, $n = 96$ approached, only one organisation participated in the survey ($n = 1$)) Case Studies ($N = 13$) Intervention Attributes Set	The organisations interviewed were known personally to the research team Intervention Attributes Set - Piloted among the research team, not tested among SMEs. Works in theory but has not been subjected to practical use	SMEs have <i>gatekeepers</i> who provide or withhold information, and who need to be targeted to effect change within the organisation. Interventions should target also the workforce directly.
27.	Strutt et al. (2004)	RR 385	MM	Direct contact with identified organisations. Focused on four specific sectors - Motor Vehicle Repair, Small Bakery, Carpentry, Hairdressing	Face-to-face interviews ($N = 8$) Focus Groups ($N = 4$)	<ul style="list-style-type: none"> Elicit perceptions, not facts Reactive approach to H&S - respond to consequences when they occur 	<ul style="list-style-type: none"> Different sectors face different risks - need to communicate in a way that accounts for their business activity. Do not respond well to 'general' safety messages. Effective communication involves two elements: <ul style="list-style-type: none"> Medium/channel: suppliers, packaging, trade publications Message/style: Pictorial - element of style; Written - bold, clear and straightforward

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28.	Tait & Walker (2000)*	CRR 308	S, M	Telephone contact to companies that received help from the Safety Information Centres	Telephone Interviews (N = 24)	Assessed that the intervention of the Safety Intervention Centres was successful in moving small firms forward in their H&S management	<ul style="list-style-type: none"> ◆ Principles of the approach used in the evaluated Safety Information Centres could be used to standardise the advice given by other such Centres ◆ Principles used to encourage H&S consultants to provide appropriate advice to small firms
29.	Tijssen & Links (2002)	RR 014	S, M	Workshop with participants from Belgium, France, Germany, The Netherlands, United Kingdom, Scotland		Aim of the workshop was to share information on developments in Europe of tools for assessment and control of risks for SMEs	<ul style="list-style-type: none"> ◆ Small firms need simple tools written in plain language ◆ An electronic tool needs to be developed in the future as more workplaces and individuals are using the Internet

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30.	Vickers et al. (2003)	RR 150	S		Telephone survey (<i>N</i> = 1087) Face-to-face interviews (<i>N</i> = 119)	<ul style="list-style-type: none"> • Main influences on firms <ul style="list-style-type: none"> - Nature/associated pressures of the market - Role of the supply chain - Requirements of large customers/contractors - Characteristics of the business - Firm size - Sector differences - Cultural influences • H&S inspectors' visits saw positive assessments of H&S' financial benefits • Businesses with 25+ employees had most structured approaches • Employees hesitant to use PPE as hindered job, esp. when accidents do not occur • HSE/local authorities most common sources to spread H&S info. • Low level of awareness of H&S legislation 	<ul style="list-style-type: none"> ◆ HSE work flexibly with range of intermediaries as play vital role in reinforcing H&S messages, esp. to ethnic groups ◆ Promote H&S that is closely linked to needs of business, e.g. profitability/ growth, food hygiene certification and compliance for food businesses (sector specific) ◆ Increase availability of information/advice on H&S from sources not linked with enforcement action ◆ Engage with workforce on H&S issues to maintain high standards ◆ Increase the role of inspection visits to improve H&S in small firms

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Appendix 5 Overview of reports assessed (cont.)

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31.	Wheeler (2003)		S, M	Desk research		<ul style="list-style-type: none"> • Individuals who own/run business less likely to have support staff and rely on e.g. accountant to deal with compliance issues • 4 types of businesses identified: <i>statics, starting, struggling, entrepreneurs/hopefuls</i>. Statics and struggling harder to reach, as less alert to information seeking • Focus on specific media: TV, radio, newspapers, word of mouth • Receptiveness to communication depends on sector, age of business, and whether HR professionals are employed 	<ul style="list-style-type: none"> ◆ Focus communication on providing help and advice to enable SMEs to comply with legislation ◆ Communication should reflect the segmentation of SMEs ◆ Lack of support staff in small firms, so rely heavily on intermediaries to deal with compliance ◆ No dominant method of delivery via media, SMEs can respond to TV or radio or newspapers etc. ◆ Information provided must be accurate, of good quality and entail a speed of response ◆ Communication should be persuasive than coercive, showing benefits to SMEs

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32.	Whitnell (2004)		S		Review	<ul style="list-style-type: none"> • 3.8 million SMEs, but 1,500 HSE and 1,300 LA inspectors • Businesses belonging to a trade association have higher standards of H&S 	<ul style="list-style-type: none"> ◆ Avoid generalisations ◆ Use more objective approach, work from needs of groups to identify a range of interventions ◆ Groups are not static ◆ Holistic model developed - includes demographic, cultural, behavioural, attitudinal, administrative characteristics ◆ Use groups - increase contact - snowballing ◆ Use HSE website to develop dialogue with hard to reach groups ◆ Use experience/expertise of HSE staff ◆ Interactive events are better received by participants ◆ HSE continue to work in close partnership with business links as small businesses (80%) aware of them

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33.	Wiseman & Gilbert (1999)		S, M, L	National Britannia provided contact details of callers to HSE InfoLine	Face-to-face interviews (<i>N</i> = 8) Telephone interviews (<i>N</i> = 513)	<ul style="list-style-type: none"> • Calls to InfoLine are from firms with: <ul style="list-style-type: none"> - 11-50 employees (33%) - 51-250 employees (19%) - 251+ employees (18%) Main reasons for calling included: <ul style="list-style-type: none"> • Obtain H&S information (64%) • Gain H&S guidance or advice (32%) • Part of caller's job (17%) • Concerned about a specific problem at work (16%) Expected benefits included: <ul style="list-style-type: none"> • Hoping for useful and relevant information (77%) • Ensuring compliance with the law (36%) • Getting information that is clear and easy to understand (27%) Majority of callers felt they benefited from calling helpline (86%) 	HSE InfoLine needs to be more widely publicised

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34.	Wiseman & Gilbert (2002)	CRR 434	S, M	Database of purchasers of COSHH essentials	Telephone interviews (<i>N</i> = 500)	Effectiveness of COSHH essentials among SMEs: <ul style="list-style-type: none"> • Aware of COSHH essentials via HSE's leaflets - 71% of respondents; • Through adverts - 18%; • Through trade associations - 11% 76% of firms that used COSHH Essentials have taken some form of action	More targeted promotion of COSHH Essentials to smaller firms is needed
35.	Witana (2001)	CRR 353	S	Direct contact with business advisers	1 st stage - Face-to-face and telephone discussions (<i>N</i> = 5) 2 nd stage - Consultation document and questionnaire (<i>n</i> = 17); Interviews (<i>N</i> = 3)	Specific messages for specific businesses Documents need to be simple and non-technical	The provision of H&S information to business advisers needs to be pursued

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36.	Wright (1998)			Review of empirical studies		<ul style="list-style-type: none"> • Main factors that motivate SMEs to start H&S improvements <ul style="list-style-type: none"> - Fear of loss of corporate credibility - Belief that it is necessary and morally correct to comply with H&S regulations • No unique SME factors • Health risks are downgraded as they seldom occur and are generally non-fatal 	Common perception that health improvements are a “cost” rather than an “investment” shows the need to promote the commercial benefits of H&S management

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APPENDIX 6 STEPS IN AN EVALUATION

Table 3 Typical questions within evaluation stages and their corresponding activity

EVALUATION STAGE	QUESTION	EVALUATION ACTIVITY
CONCEPTUALISATION	What is the nature and scope of the programme to be evaluated?	Identification of original objectives
	What are the problems with the existing programme?	Identification of existing and potential problem areas
	What are the possible alternative actions?	Identification of possible solutions
	What are the appropriate target populations	Identification of the appropriate targets and development of focused targeting strategies
IMPLEMENTATION	Is the programme reaching its target?	Implementation and monitoring of focused targeting strategies
ASSESSMENT	Is the programme effective?	Measuring impact of the programme. Cross checking against stated desired effect
	Is the programme cost effective?	Cost benefit analysis

Source: Rakel et al. (1999), p.8

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