The evaluation of occupational health advice in primary health care

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The aim of this evaluation was to investigate whether the provision of occupational health advisory services in general practice settings would result in improvements in workplace environments and workers' well-being. Data was collected from working individuals attending 12 general practices in England. Half of the participants were offered occupational health advice almost immediately. At follow-up, 4-6 months later, workplace environment, procedure, and organisation, and symptom reports, were again measured in participants, and compared with their original baseline data. A second group of participants who received no occupational health advice until 6 months later were also measured on the same range of workplace factors, and compared with those workers at follow-up who had received advice interviews. Those who received advice showed some workplace improvements compared with those who did not. At follow-up, advised participants reported significantly fewer overall hazards in their workplaces, and fewer symptoms than they reported at baseline. Compared with un-advised workers, the advised workers reported more physical hazards in their workplaces, which may be an indication of their increased awareness as a result of receiving such advice. Measures of worker satisfaction and ratings of how useful the advice interviews were shows that such advice was positively received.

It is concluded that such advisory services can be associated with tangible benefits to workers' wellbeing, in terms of equipping and empowering workers to change their problematic situations, reductions in workplace hazards and symptom reports, and increasing awareness of some hazards. The study also concludes that there is a need for occupational health services to go beyond such outreach advisory work in order to assist workers in implementing occupational health advice, and to sustain such positive changes. Reasons for the improvements over time are discussed, as are the methodological difficulties encountered in such an evaluation.

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This evaluation study was originally designed and planned to be an evaluation of four individual occupational health advisory services, conducted by the Institute of Occupational Health at the University of Birmingham. Due to internal issues with two of those services, this evaluation continued with the involvement of only two of the four original services. In addition, follow-up of the participants was reduced from the originally proposed twelve months to six months, in order to allow the two participating services to concentrate effectively on the increased number of participants they needed to advise. Preparatory work and initial data collection began while the study was under the auspice of the University of Birmingham. After one year of work, the evaluation was transferred to the School of Health and Policy Studies, in the Faculty of Health and Community Care, at the University of Central England, due to staffing changes. Although published as a study conducted by the University of Central England, the work undertaken by people at both Universities, Occupational Health Advisory Services, and the HSE, in order to transfer the work smoothly is appreciated. To this end, both Universities view this evaluation as a collaborative effort.
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EXECUTIVE SUMMARY

This evaluation relates to the effectiveness of providing advice on the management of workplace hazards to individuals in a primary care setting. This is based upon two occupational health projects currently operating advice services in primary care settings (Sheffield Occupational Health Advisory Service and Healthworks in London). A unique opportunity for them to evaluate their work arose through a common recognition of the need for such a study and through collaboration with the Institute of Occupational Health at the University of Birmingham. This collaboration was then furthered to include the University of Central England in Birmingham for the second year of the evaluation. The original study was also planned to include evaluations of two other occupational advice services operating in the north of England, but due to extraneous factors, both of these services had to withdraw from the study before data collection could begin. Due to the number of participating advisory services being reduced from four to two, the research-workload for both of the advisory services was effectively doubled, which necessitated reducing the original follow-up time of participants from twelve months to six months.

Primary care can deliver a wide range of other health-related benefits for patients, including an improved fit between patient health and their jobs as well as other psychological or social benefits. Occupational health and safety advisors have reported such health-related benefits during the operation of the seven occupational health projects currently active in the UK at the time of the commencement of this study. However, it is acknowledged that each kind of health benefit or workplace change arising from primary care advice may need a targeted evaluation using specific and appropriate methodology, if they are to be identified and proved to exist. This report describes a study designed to test two aspects of potential benefits of primary care advice; the prevention and/or reduction of ill-health related to work, and the adaptation of work to the needs of the workers by the improvement of workplace environments.

This study was designed to evaluate occupational health and safety advice services, operating and giving advice in GP waiting rooms, as closely as possible to how they existed at the time of commencement of the study, without any major modification being made to the type of advice they gave. Voluntary participants were asked to complete standardised questionnaires gathering information on the hazards to which they were exposed at work, their working environments and possible work-related symptoms along with other relevant demographic data. The provision of information, advice, health surveillance and support to working participants identified in need of help was performed according to established protocols already in operation at the occupational health projects.

This report is concerned with firstly, the quality and integrity of the data obtained at baseline, and to this extent is concerned with the data generated by the screening questionnaires that were completed by general practice patients. Such questionnaires were completed by (i) individuals who were willing to participate in the study (known herein as “participants”), and (ii) individuals who did not want to participate in the study, but who were prepared to complete the screening questionnaires (known herein as “non-participants”). Secondly, and more importantly, this study was concerned with the analysis of the follow-up data generated by the evaluation, in accordance with the aim and objectives highlighted in section 2 (Aim and Objectives) in order to ascertain if occupational health advice within primary care produces tangible benefits to workers in terms of health, hazard reduction, and improved working facilities.

The assignment of patients at each practice to either an immediate advice group (IAG) or delayed advice group (DAG) was governed by alternating recruitment of individual
participants. Workplace change was assessed at follow up, between four to six months after the initial interview / advice session, compared with the information gathered by the initial baseline questionnaire from surgeries. In this respect, the evaluation used both within-participants and between participants analyses. In a practice-based study such as this, it is important to understand how similar or dissimilar such participants are to any non-participants, as this may dictate how generalizable to the general working population, any such findings based upon participants’ data may be. In furtherance of this, it is also important, in a between-participants study such as this, where one form of intervention (immediate advice) is compared with another (delayed advice), that the participants in both interventions are comparable.

Analysis of the data showed that there were no significant differences between the advice group and the non-advice group in terms of the number of participants who reported they noticed changes in health and safety in the previous 4-6 months in their places of work. However, at follow-up, significantly more advised participants than non-advised participants reported that routine and specific tasks were performed noticeably differently than before, including getting more help with daily tasks, although they also reported significantly more increases in general workload, and increases in the task-load of day-to-day tasks. Such increases in workload may be a surrogate measure of the success of the advised participants to cope with and therefore function with greater workloads after implementing the advice. No differences concerning specific factors associated with successful return to work from sickness absence (such as graduated return) were observed between the advised and non-advised groups, although the sum number of such factors were significantly greater in the advised participants. Advised participants reported significantly more physical hazards in the workplace at follow-up than the un-advised participants, and this may be a sign of increased awareness of hazards among advised participants. There was no difference in the number of organizational, environmental or psychosocial hazards, or the total number of hazards reported at follow-up between the groups. The number of symptoms reported at follow-up also failed to differ significantly between the advised and non-advised participants.

When comparing baseline data with data from the follow-up, the advised participants reported significantly fewer organisational, physical, and environmental hazards, as well as the total number of hazards, at follow-up than at baseline. Psychosocial hazards did not appear to be reduced after the advice interviews. However, every individual hazard at follow-up, was either significantly less prevalent or no more prevalent than at baseline among the advised participants. The mean number of symptoms reported by participants from the advice group was significantly less at follow-up than at baseline. There were also statistically significant reductions in 25 (of the 31) different symptoms listed in the study by follow-up. None of the symptoms had increased in prevalence between baseline and follow-up.

This evaluation has shown that tailor-made individual advice interviews can be associated with significant reduction in a range of specific hazards in the workplace for at least 4-6 months, as well as a reduction in the number of symptoms reported by participants at the same time. However, other reasons for these apparent improvements are considered in the Discussion section. The report supports the strategic direction for providing Occupational Health support but it does not look at the most cost-effective methods of doing that, and further work on the cost-effective aspects of sustaining such benefits of advice need to be ascertained next, in accordance with the HSC strategy.
1 INTRODUCTION

Repeatedly, HSE reports have mentioned theoretical and practical problems in trying to provide occupational health and safety at work to the burgeoning number of small and medium sized enterprises. This difficulty is also compounded by the difficulties that would be met when inspecting for health risks rather than merely injury risks. The primary care arena has been suggested as a forum where occupational health and safety advice could be given as a means of preventing occupational diseases and injuries. Given that up to 7% of general practice consultations are for work-related issues, general practice may be an appropriate arena for such interventions. Prevalence studies have ascertained that over 90% of patients registered with a general practitioner will visit their GP within a three-year period. Such visits to the GP naturally offer the increased possibility for reviewing workers’ health and safety risks, and for identifying work-related ill-health and such trends.

Two teams of occupational health and safety advisors, who have been providing such a service to patients in the primary care setting over several years agreed to be involved in an evaluation of how such primary care delivery of occupational health advice could work. Such a formal evaluation is heavily reliant on the expertise of such teams and would not have been possible without their close cooperation. Such expertise could include advice on the management of workplace hazards, the assessment of the “work-relatedness” of any health problems, or improved treatment and data collection to help identify patterns of work-related ill-health. Both Healthworks in London (a Newham-based team) and Sheffield Occupational Health Advisory Service (SOHAS) collected data from what would be routine advisory sessions for them, and additional data from general practice patients in the surgeries where they conduct some of their work.

The need for such an evaluation has been emphasised by the HSE OHAC report and recommendations for improving access to OH support, which suggested that occupational health services could produce several outcomes and benefits for those involved. Such benefits could be categorised either as being improvements or changes in the workplace (or in work-practices) or as health improvements or stability. Workplace / work-practice outcomes could include those in which any occupational health and safety advisor, in discussion with the patient, identifies hazards for which there has been little or inadequate health and safety provision, or for which health surveillance should have been instituted. Health outcomes could include the identification of work-relatedness or occupational association with patient ill-health, possibly leading to improved diagnosis and more appropriate treatment for the individual. However, health outcomes are more difficult to evaluate: work-relatedness may be difficult to assess in the primary care context and some conditions such as asthma or occupational dermatitis may require detailed and specialist investigation. Other conditions may have a long latency period, such that the benefits of any intervention may never be fully recognised in a provable or quantitative fashion.

However, as many working people do not have easy access to an occupational health service, and given that such services are often overburdened, advice provided in the primary care setting could at least lead to empowerment of the worker, and possibly provide them with an opportunity to influence workplace exposures for fellow workers as well as for their own benefit, and indeed influence management attitudes. Such disparity between what is required by workforces, and what is actually available provides the impetus for this evaluation. Especially when considering that work related disease or discomfort is often missed by general practitioners, and for many physicians there can be little reason to justify diagnosing such diseases, as few may know what to proactively do about them. Poorly informed or ineffectively communicated advice from GPs to their patients to change jobs does not do the symptomatic-workforce justice. General practitioners can also be limited when giving advice
on benefits and other social necessities\textsuperscript{13,14}. Given the magnitude of this problem, the current mechanisms for managing work related illness and the weak link between that activity and improving problematic workplaces in the United Kingdom are seemingly inadequate\textsuperscript{15,16}. Additionally, while there is no established NHS network of specialists to whom general practitioners may refer patients with suspected occupational disease, the current situation may get much worse\textsuperscript{12}.

1.1 BACKGROUND TO THE LONDON BOROUGH OF NEWHAM

The London borough of Newham comprises twenty-four wards. Its population of around 230,000 is characteristically young, highly mobile and culturally diverse, with a rich mixture of religions, cultures and languages. In 1997, the ethnic minority population was estimated at more than half (51.7\%) of the total, although recent asylum seekers moving to the area are likely to have increased this, together with individuals from Eastern Europe who are classified as white\textsuperscript{17}. The percentage of residents of working age in employment was 55.8\% in 1997, with an unemployment rate of 10.0\%, which is notably higher than the corresponding rate for Inner London (8.2\%) or Greater London (5.4\%). Youth unemployment was also high – over a quarter of the unemployed people (27.2\%) were aged between 18 and 24\textsuperscript{17}.

In 1997, the number of business establishments was 5,030, with a total of 56,300 people in employment. More than four fifths (83.4\%) of the jobs were provided by small firms with 1-10 employees, 16.0\% with 11-199 employees and only 0.7\% with more than 200 employees\textsuperscript{7}. The types of employment in Newham in 1997 are as follows, (with the percentage of the local population employed in each sector: Public administration, education and health (27.4\%), Distribution, hotels and restaurants (20.9\%), Financial and business services (19.8\%), Manufacturing (11.9\%), Transport and communications (9.5\%), Other services (6.3\%), and Construction (3.7\%). An employer survey carried out by LETEC in 1999 found that ethnic minority businesses formed 40\% of the total, and according to the SRB Provider Development Project, two thirds of the 1,400 voluntary agencies in Newham were black and ethnic minority agencies.

1.2 BACKGROUND TO HEALTHWORKS IN LONDON

Health Works in London is an occupational health and safety advisory service, which has been working in the London Borough of Newham since June 1997. They are a partnership organisation funded and supported by Newham’s Regeneration programme, the local Environment Department and Newham Primary Care Trust. Healthwork’s aims are;

- To work in partnership with voluntary and statutory organisations and businesses within the community
- Prevent and reduce the incidence of work-related ill health and injury particularly amongst sections of the community at greatest risk.
- Increase general awareness of work related ill health, the causes, and prevention.
- Increase the likelihood that work-related ill health will be recognised and diagnosed at an early stage by primary health care workers.

Healthworks operates with GPs and Primary Health Care Teams, raising awareness of occupational health and safety issues and giving information, advice and support on health, safety and employment rights to people attending surgery. They currently work in ten GP Practices and one Community Centre. The most frequently reported work-related health
problems in the borough were musculoskeletal disorders and stress. Although workers can self-refer, an increasing number have been referred to the project through their GPs and other primary health care workers. Healthworks has a special remit for young people, as many carry out work which could put their health and lives at risk. Healthworks aims to equip young people with the skills and knowledge to protect their health and safety as they prepare for work.

Teaching sessions have been developed for the PHSE curriculum, supporting schools in preparation for pupils on work experience in years 10 and 11. An interactive drama session was commissioned to support teaching sessions and has formed part of school work. A similar course has been developed for young unemployed people on New Deal. Healthworks also delivers a similar session to unemployed students with English as an Additional Language and recently began delivering a refresher introduction to health and safety at work for unemployed people over 25 years, all of which are also delivered as part of the New Deal for employment courses. Healthworks also cooperates with local small employers, by providing information and services on health and safety compliance, carrying out health and safety audits and reports, and delivering training on health and safety for potential employers setting up in business.

Healthworks is funded by the Single Regeneration Budget (SRB) – Access to Excellence Initiative, which is the main source of funding for the organisation until March 2005. Additional funding is made “in kind” by the London Borough of Newham Environment Department, and includes accommodation, office furniture, equipment and support from staff and services in the Environment Department.

1.2.1 Employment and health in Newham

Although there are no official figures for work-related ill health and injuries specifically for Newham, anecdotal evidence indicates that a high percentage of working people have a work related health problem. Field workers report that seemingly over 50% of working patients (approached in general practice surgeries) reported work-related ill health resulting from their current or previous work. In summary, field workers report;

- Musculoskeletal disorders have been the most frequently reported work-related health problem
- Changes to industry in this area over the last 20–30 years have resulted in a shift towards micro, small and medium sized enterprises where employers and workers have little or no access to occupational health and safety advice
- Local data from 1994 showed that 86% of people interviewed had no access to this type of advice in their current or previous jobs and 9% did not know that their health problem could be work related
- Most home workers were women, with many likely to belong to ethnic groups. Healthworks produced a Health and Safety Pack aimed at Home workers and managed a pilot home workers' safety equipment loan scheme with two local voluntary organisations.
1.3 BACKGROUND TO THE CITY OF SHEFFIELD

Sheffield has a population of 530,000 people. With the area is divided into 29 electoral wards, 6 parliamentary constituencies and 4 primary care trusts. Ethnic groups make up approximately 8% of the local population. In several respects Sheffield’s employment statistics are converging towards those of other large cities, with only slightly more people employed in manufacturing (18%) and slightly fewer in banking and finance than the rest of the United Kingdom. However the past employment patterns of Sheffield adults are relevant to their current occupational health concerns. For the older age groups, a quarter or more have spent most of their working lives in the steel and engineering industries.

Six percent of those of working age claim unemployment related benefits, but in all 25% are not employed; the remainder being on long-term illness related benefits or not economically active for other reasons. The overall prevalence of long-term limiting illness is also 25% according to a 2002 illness prevalence survey. Ten percent of those in work are self-employed, and estimates of the number of businesses in Sheffield vary, depending on the definitions used, but there are probably between 14,000 and 22,000 operations, many of which are micro-businesses.

1.4 BACKGROUND TO SHEFFIELD OCCUPATIONAL HEALTH ADVISORY SERVICE

SOHAS was set up as a response to the major health and safety legislation of the 1970s; The Health and Safety at Work Act, which set a framework for employers and workers, and which gave new life to an existing organisation in Sheffield, the Sheffield Area Trade Union Safety Committee. The regulations on the rights of safety representatives and safety committees in 1978 were a further step forward. But members of TUSC and a local group of concerned scientists, the Sheffield Hazards Group, realised that many workers were not benefiting from the new legislation. The Sheffield Occupational Health Project (SOHP) was set up to hold outreach sessions, first of all in working men’s clubs from 1979 and later in GPs surgeries (from 1980), to reach workers without safety reps or unions, or with ineffective safety organisation at work. Amongst the enthusiastic supporters of this work were GPs who were familiar with the work of Julian Tudor Hart and Dr Donald Hunter, pioneers in general practice and occupational health respectively.

Starting as it did, in the Attercliffe Victory Club in the East End of Sheffield, there was a natural focus on the health and safety problems of steel and engineering workers; for example, noise and exposure to chemicals. Using a home-made audiometer, SOHP started looking for hearing damage amongst workers who were often unaware of the effects of noise at work. During the 1980s this became a major campaign for compensation amongst steelworkers throughout Britain. A team from SOHP, comprising ex-steelworkers made redundant in the early 1980s, travelled Britain enabling thousands of steelworkers in England, Scotland and Wales to obtain compensation for their deafness.

Recognition by one advisor, of the high prevalence of respiratory problems amongst older steelworkers at GPs’ surgeries, started SOHP’s work to gain recognition for Chronic Obstructive Airways Disease (COAD) caused by work. While this has still to be recognised by the government as a prescribed occupational disease, the major research projects carried out in UK, improvements in ventilation, and successful civil compensation claims, would not have happened without SOHP’s initiative. It is now generally accepted that COAD is part of the legacy of Sheffield’s industrial past. A research project carried out by SOHP in one Sheffield practice, and a take-up campaign for industrial disablement benefits, extended this...
work to gain greater recognition for occupational asthma in Sheffield. This work culminated in publication of a book on occupational asthma by SOHP in 1995.

The mid-1980s also saw the emergence of repetitive strain injuries as common occupational health problems. Through public meetings and a support group, SOHP focused on a problem whose existence had yet to be recognised by many specialists at the time. A small research project carried out by SOHP and TUSC in 1990 showed how common musculoskeletal problems were in Sheffield. SOHP had also developed work with ethnic groups – mainly men employed in Sheffield’s heavy industries from Pakistan, Bangladesh, Yemen and the Caribbean. This was initially focused on industrial deafness but became a semi-autonomous group, the Black and Ethnic Minority Occupational Health Initiative.

By 1989, a project that had started as a voluntary activity in working men’s’ clubs had moved from a couple of surgeries to seven doctor’s surgeries in Sheffield, with advisors paid as ancillary workers from the NHS primary health care budget. The introduction of payments to GPs for Health Promotion Clinics – at a time when primary care funding was not cash-limited – enabled SOHP to expand to work in 20 practices across Sheffield. With funding from other sources as well, SOHP became a large collective of workers from a mixture of backgrounds. In 1992 Sheffield was host for the highly successful Second European Work Hazards Conference, funded by the European Union as a meeting place for health and safety advisors and workers’ safety representatives.

From 1992 the funding regime in primary health care changed, and income from external sources also fell. There was also a change in the occupational health priorities of the local workforce: there were fewer industrial workers, but the stress of intensified work – already reported by steelworkers after the redundancies of the 1980s – was becoming widespread. With high levels of unemployment, rehabilitation became a major concern. The perception from primary health care was that a whole generation of industrial workers had ended up in long-term unemployment or long-term sickness roles that were damaging to them. From 1997, SOHP began looking for government funding to provide rehabilitation and retention advice on a more systematic scale as it had been doing in primary care in the mid-1990s. During this period SOHP’s work began to focus on working hours – a successful conference was held on this subject in 1996; on stress, and on risks at work that affect pregnancy and birth outcomes. The broad area of stress and work-life balance has continued to be important with recent publications on mothers at work and work-life balance.

With an exceptionally committed workforce struggling to replace the income that had allowed it to develop its work so actively, SOHP entered a difficult period, taking hours cuts and reductions in real pay to keep the organisation going. In 1999 members of SOHP recognised that its existing collective structure needed to adapt to the new circumstances and set up a limited company, Sheffield Occupational Health Advisory Service, with a manager and trustees. Over two years there were major losses of advisors, some of whom retired, while others left or were made redundant. This was also a period in which the government’s plans for occupational health matured with major initiatives in the area of rehabilitation (the New Deal for the Disabled projects), and later the Job Rehabilitation and Retention Pilots; and an inter-departmental Occupational Health Strategy; Securing Health Together, launched in 2000. It was a sign of the political support that SOHP’s service in primary care had gained (amongst national and local politicians) that a SOHAS speaker was invited to speak at the launch of the strategy. SOHAS has been well-placed to take part in the government’s occupational health initiatives.

Department of Health Section 64 funding has helped SOHAS to publicise its work, with publication and the launch of a Manual of Occupational Health in Primary Care in 2001, seminars for health care workers on occupational health in primary care, and development of internet resources for patients and primary health care staff. The Job Retention Pilot has also
afforded SOHAS a unique opportunity to demonstrate the strength of primary health care as a setting for finding employees in need of occupational health support.

Some things have remained unchanged over the period of SOHP and SOHAS’s existence. The lack of a legal framework for occupational health service provision in UK and in contrast, the strong community and political support in Sheffield for provision of services, are amongst them. Lower levels of trade union membership, and changes in the way people are employed (smaller units, self-employment, agency working, the informal sector) make effective provision even more difficult over the same period. SOHAS’s work emphasises a holistic approach to occupational health, helping patients with prevention, rehabilitation, financial aspects of the options they have, vocational choices and training; often at times of crisis in their working lives. SOHAS advisors see the links between areas of public policy and business practice that are not always well coordinated. Advisors continue to have strong links with trade unions as members, tutors at the South Yorkshire Trade Union Studies Centre and occasional researchers.

It has become clear within SOHAS over the last few years that progress could not be made without working in partnership with other organisations, developing the national profile of it’s work, networking with other local and national projects, and constantly developing the skills of advisors and the methods of work carried out. The core work of SOHAS, the Workplace Health Programme, is developing its service to patients throughout the four Sheffield Primary Care Trust practices on a new three-year programme, receiving referrals from all primary care professional groups and encouraging the inclusion of occupational factors in the clinical management of major adult health problems. Development of the SOHAS website will increase access to specialist knowledge for an additional group of people in Sheffield.

SOHAS takes part in local networks in Sheffield and South Yorkshire, as well as in national networking activities; the Hazards Campaign, and the National Employment and Health Innovations Network are two examples. SOHAS is changing as an organisation in order to cope with its additional workload, but the core purpose of it’s work remains unchanged – to help individuals and groups of workers to improve working conditions, to alleviate the effects of work-related injury and ill-health, and to enable those with activity-limiting health problems who wish to do so, to work, and to concentrate efforts on those with least access to help from other sources.
The aim and objectives of the evaluation was to investigate whether the provision of advice concerning workplace hazards to individuals, in a primary health care setting, could result in improvements in their working environment and their health. Such evaluation used both quantitative and qualitative measures. The original study was designed to use the following objectives:

1. Whether working conditions have improved since the commencement of the study

2. If so:  
   - in what ways have they improved?  
   - has this improvement been of benefit for the patient and co-workers?  
   - to what was the improvement due?

3. If this was due to the advice provided  
   - how was the advice used to produce the improvement?  
   - what factors might be viewed as critical to the success of this approach?

In addition, the study also examined how, if any such changes in the working environment and / or practices were achieved, and what the consequential benefits may have been. Specific objectives in the evaluation were to:

1. Recruit voluntary participants from selected GP surgeries
2. Collect baseline data of participants’ workplaces, details, and any symptoms
3. Provide occupational health interviews / advice sessions to all participants
4. Follow-up immediate advice group patients before 6 months and collect data
5. Follow up delayed advice group patients before 6 months and collect data
6. Provide occupational health advice interviews to the delayed advice group participants (as an ethical interest).
3 METHOD

3.1 ETHICAL CLEARANCE
This evaluation study and the data collection procedure was granted ethical clearance in April 2002, by the West Midlands Multi-centre Research Ethical Committee (MREC), based at; Birmingham Health Authority, St Chad’s Court, 213 Hagley Road, Birmingham B16 9RG.

3.2 RECRUITMENT PROCEDURE
Employed patients who attended any of the participating GP surgeries between September 2002 and May 2003 were informally invited to participate in the voluntary study by a SOHAS or Healthworks recruitment worker, present in the surgeries. All potential participants were given a formal letter of explanation (Appendix 1) and a consent form (Appendix 2), as well as a formal conversation about the study with the SOHAS / Healthworks recruitment worker. Participation was on an entirely voluntary basis and it was made clear in the patient / potential participant guidance that individuals were free to decline to take part, and that participants could withdraw at any point in the study without having to offer any explanation or incurring adverse consequences to their subsequent treatment. Textual comments and experiences of the recruitment workers are included in Appendix 3.

Invitations and such conversations were conducted in the waiting room and associated rooms of participating surgeries. Those patients who were willing to participate were asked to complete a baseline occupational health questionnaire (Appendix 4) to gather information on their workplace exposures, symptomology, possible health effects and their demographic details. Exclusion criteria operated for those who were not working, and for those who were below 16 years. No upper-age exclusion criterion was imposed in order to acknowledge older workers. Self-employed individuals were also included in the study. A smaller number of patients in the Sheffield region were also included in the study who had been referred from their general practitioners to the SOHAS service. The appropriate SOHAS occupational health and safety advisor asked those who were referred if they would like to participate in the study, using the literature and consent forms outlined above. In this respect, some patients from the SOHAS dataset were not recruited directly through GP waiting rooms, and separate information is given for these patients in Appendix 6.

3.3 DESCRIPTION OF ADVICE INTERVIEWS

3.3.1 Routine interview sessions
Occupational health & safety advisors routinely conduct screening interviews in GP and community centre waiting rooms. If a patient agrees to be screened, the advisors take a brief work history which allows the advisors to list and quantify any hazards the patient may encounter. The advisors then assesses whether a patient’s health problem (if any) could be work related, and if any are identified, the patient is usually given relevant verbal advice and information along with any relevant literature or leaflets that the advisor may have. The patient is also offered the option of a further referral appointment, which would take place within two to three weeks of the initial waiting room interview.

The advisors explain to the patients what the service can and cannot do. Advisors also state that at the end of the interview, they will be provided with a report within two to three weeks, which unless they have any objections, will also be copied to their GP or other parties. Such interviews usually last between 45 minutes to one hour. Patients are told they can use the report as a starting point for themselves to raise or take action at work, or pass on to line managers, health and safety officers, or trade union representatives if they so wish.
The reports contain a summary of the discussion between the patient and advisor, followed by the relevant health and safety regulations (and sometimes employment law) that applies in their situation, followed by a ‘Suggested Further Action’ section. Also included in the report are relevant HSE leaflets, extracts from union publications, and other booklets developed by other occupational health projects. If appropriate, reports may also include lists of solicitors in the area who specialise in employment law, and details of other organisations that may be able to assist.

### 3.3.2 Referral interview sessions

If an individual has been referred to the advisory service by either a GP or other health professionals such as physiotherapists or nurses, the occupational health and safety advisor makes an appointment with the patient in any of twelve surgeries that they operate in. An appointment letter is sent to the patient confirming the appointment, and the advisor meets with the patient at the surgery and the meeting takes place in a private room.

### 3.4 PARTICIPANT ALLOCATION

Participants were sequentially alternated and allocated into either the “immediate advice group” (the IAG) or the “delayed advice group” (the DAG). One exception to this was if any participants displayed evidence of a significant work-related health problem or risk of injury, when such participants would be automatically enrolled into the immediate advice group and their details documented for use as potential case studies. This study was designed to allow advisors to take appropriate action in these circumstances both for the immediate advice group and delayed advice group participants, without ethically compromising the study.

Members of the immediate advice group were offered a face-to-face interview / advice session with an occupational health and safety advisor either on the spot, or at a time as soon as possible, but within one month of entering the study, at the convenience of the participant. The interview / advice sessions lasted for approximately thirty minutes to one hour, depending on the nature of any issues raised in the session. The immediate advice group participants would then be followed up between four to six months after their entry into the study, when follow-up data concerning any workplace changes or health changes would be collected via telephone survey. The telephone survey used a modified version of the occupational health-screening questionnaire, and is shown in Appendix 5.

Members of the delayed advice group were also offered an interview / advice session with a professional, but at a time between four and six months after entering the study. When contacted for their delayed interview / advice session, participants were asked to complete the follow up questionnaire in order to ascertain if any workplace changes or health changes had occurred in the absence of the occupational health advice. This allowed for a comparison of any changes between those participants who had received advice earlier and those who had not received advice, while ethically not excluding any participant from the potential benefits of an occupational health interview / advice session. Figure 1 shows a schematic of the recruitment process.
3.5 OUTCOME MEASURES

This evaluation needed to use a variety of outcome measures, some subjective and some objective in order to evaluate the many possible ways that potential changes within workplaces could be made. To this extent, this evaluation used several outcome measures, assessing a variety of changes on individual, day-to-day, and organisational issues. At the follow-up stage, between four to six months after the initial screening interview (and advice session for those participants in the IAG), telephone interviews asked for details about the following outcome measures:

a. The impressions of the advice interview participants had with the advisor (IAG only)

b. The impressions of the advice the participants received (IAG only)

c. What the participants did with any advice they received (IAG only)

d. Ratings of the usefulness of the advice they received (IAG only)

e. What types of changes (if any) had occurred in the workplace in the previous 4-6 months (IAG and DAG)

f. The number of workplace hazards reported (IAG and DAG)

g. The number of symptoms reported (IAG and DAG)
Outcome measures a, b, c, & d listed above were ascertained by subjective ratings given by participants at follow-up. Outcome measures e, f, & g were ascertained by assessing any differences between baseline and follow-up data concerning hazard exposures (Physical, Organisational, Environmental, and Psychosocial), and symptom reports.

Further measurement of participants’ workplaces and demographics provided details of whether any such change(s) in working conditions had occurred, and if so:

a. In what ways had the conditions changed (if any)?
b. Had such change(s) been of benefit for the participant?
c. If any such change(s) had occurred, to what was it due?
d. If change(s) was due to the advice, how was the advice used to facilitate this?
e. What factors may be critical to making this approach effective (e.g. participant opinion)
f. Their satisfaction with the advice they received
g. Whether participants would recommend the advice service to other people

3.6 SAMPLE SIZE CALCULATIONS

It was estimated on the basis of previous experience and the evaluation conducted by the Lothian Occupational Health Project, that 200 pairs of workers could reasonably be recruited for the final analysis, achievable from approximately 40 weeks of recruiting in surgeries. Based on surgery data, which indicated that approximately 250 people attend a 4-partner practice each week, a 40-week run of recruitment in a surgery waiting room would involve 10,000 patients passing through. However, not all of those 10,000 people would be suitable to attempt to recruit into the study because of the exclusion criteria (minors, retired people, and the unemployed). Surgery data suggested that approximately 8000 of those patients would match the inclusion criteria of working age and being in employment.

Drop out of some participants was expected because of the anticipated difficulty in maintaining contact over a six month period, especially in the delayed advice group. Anecdotal evidence from both SOHAS and Healthworks suggested that where advice had been offered in the past, relatively high levels of participation in follow-up surveys has been achievable. It was acknowledged that a differential dropout rate between the delayed advice group and the immediate advice group could adversely affect later statistical analyses, but data was collected to ensure that comparisons of homogeneity between any drop-outs and participants could be made.

Sample size study calculations were performed to compute the participant numbers required, which assumed that:

- Non-equal sample sizes would be used (due to expected differential drop out rates)
- No difference in (outcome measure) variance existed between the IAG and DAG at baseline
- A desired power of 90% was required
- A significance level of 5% was required
- The primary outcome measure was the number of hazards in the participants’ workplaces
- A meaningful difference in the primary outcome variable was accepted as a change of 1 or more hazards in the total number of hazards reported

The power of study calculations suggested that 211 participants would need to be recruited into the study to provide baseline data.
3.7 QUALITY ASSURANCE

In order to ensure the quality of the data, informal training was provided to the project workers in using the alternating assignment methodology, which was checked and applied consistently across both advisory services. A random sample of 20% of screening questionnaires were selected from each project and the information recorded was validated by a short telephone interview carried out by two independent research staff. The figure of 20% was reduced to a random sample of 10% of the participants due to the reduced number of participating teams and the smaller number of participants. The research staff were provided with basic contact details of participants by the project workers, (one focusing one SOHAS participants and one focusing on Healthworks participants) with 10% then randomly selected by each researcher for the quality assurance telephone interviews. Each selected participant was telephoned by the researchers until at least 10% of the participants recruited from both teams had been contacted.

The quality assurance telephone interviews for the SOHAS participants were conducted in January 2004, and the telephone interviews for the Healthworks participants were conducted in February 2004. Of all the 62 individuals contacted in the quality assurance phase (actually 12% of the total number of participants) all but two individuals (97%) recalled and confirmed that they had been asked to participate in the evaluation study.
4 RESULTS

4.1 POWER OF STUDY CALCULATIONS
The data collected in the evaluation was subjected to a power of study calculation to assess if the data had sufficient power to provide meaningful and useful conclusions. The power calculation, based on the outcome variable of “number of workplace hazards”, showed the study to have a power of 0.98, when using the following parameters:

- Mean number of hazards reported by the IAG = 6.7 ± 5.5
- Mean number of hazards reported by the DAG = 5.1 ± 4.3
- Standard deviation of the population = 5.0
- One-sided hypothesis (IAG would report fewer hazards than DAG)
- Significance level = 0.05
- Sample size (completed participants) = 510 at baseline (139 completed)

Taken to be true and correct, this calculation shows the evaluation to be 98% able to accurately detect any differences between the IAG and DAG groups if any such difference truly existed.

4.2 SUMMARY OF RECRUITMENT STATISTICS

4.2.1 Descriptive details of baseline respondents (n=510)
Four hundred and eighty-four individuals agreed to complete baseline questionnaires when approached by the research workers in waiting rooms. Figure 2 shows the recruitment process for the data from both advisory services.

4.2.2 Waiting room recruitment
In terms of waiting room recruitment, 26 people who participated after being referred to the evaluation (by their GPs) can be ignored, resulting in a total of 484 general practice patients agreeing to provide baseline data. Of the 484 asked, 247 (51%) did not want further participation, while 237 (49%) did. Of these 237 volunteers, 101 (20% of the 484 asked) eventually dropped out, leaving 115 who participated to completion from being asked to initially participate in the waiting room. A further 24 participants who completed the study were secured after referral from their GPs to SOHAS (although 26 were referred, 2 dropped-out) resulting in a total of 139 participants who completed the study.

4.2.3 Waiting room and referral recruitment figures
The number of people who provided baseline data and then either withdrew, declined to take part further, could not be contacted, where a transient population, or who participated to the end of the study is shown in table 1.

<table>
<thead>
<tr>
<th>Patient Decision</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Participate</td>
<td>247</td>
<td>48</td>
</tr>
<tr>
<td>Called away to see GP before decision could be given</td>
<td>23</td>
<td>5</td>
</tr>
<tr>
<td>Agree to participate but withdrew before follow-up</td>
<td>101</td>
<td>20</td>
</tr>
<tr>
<td>Participated and Completed</td>
<td>139</td>
<td>27</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>510</td>
<td>100</td>
</tr>
</tbody>
</table>
Of the total number of agreed participants at baseline (n=510), 218 (43%) were male, and 289 (57%) were female, with sex unknown for 3 participants. The mean age of those who provided baseline data was 38.7 years ± 11.3, minimum 17, maximum 66. The kurtosis of the age distribution was –0.77, which suggests the age distribution was normally distributed, as shown in figure 3.

Figure 3 Age distribution of baseline data providers
Of the providers of baseline data, 74.6% were working in full-time jobs. Providers of baseline data came from a wide variety of occupations, with the most frequently occurring industries being (in order) Service / Consultancy (25%), Administration / Clerical (20%), Trades / Manufacture (19%), Healthcare / Social care (13%). Followed by Sales / Retail, Education, and Customer services.

Seventy-four percent (n=367) had received some form of Health and Safety training in their current job, while 26 % had not (n=130).

Baseline respondents were asked if they had access to the following services in their workplaces:

- Trades Union: Yes = 55%, No = 39%, Not sure = 6%
- Safety representative: Yes = 37%, No = 46%, Not sure = 17%
- Health & Safety officer: Yes = 65%, No = 22%, Not sure = 13%
- Company Health & Safety manager: Yes = 51%, No = 25%, Not sure = 24%
- Company doctor: Yes = 26%, No = 62%, Not sure = 12%
- Company nurse: Yes = 27%, No = 60%, Not sure = 13%
- Safety committee: Yes = 36%, No = 40%, Not sure = 24%

Of those who provided baseline data, 26% were absent from work at the time.

The mean duration of absence was 3.4 weeks ± 7.6 weeks, with a minimum absence of 0.2 weeks and a maximum of 65 weeks. The distribution of length of absence was highly skewed towards shorter absences.

Seventy-two percent of respondents had some formal education after leaving school, with 73% acquiring further assorted qualifications, either through full-time education or vocational training.

Data came from a range of ethnic groups, with 83% describing themselves as white, 4.9% as black Caribbean, and 3.4% as black African. Other ethnic groups represented to a lesser degree included Pakistani, Indian, Bangladeshi and Chinese.

Baseline data showed a huge variety in the type of hazard exposures that workers experienced. However, “Physical Hazards” were often ranked much lower and less frequently than those classified as “Psychosocial” “Organisational” and “Environmental” hazards.

The symptoms reported by workers at baseline were varied, but of the most frequently reported symptoms, there was a high prevalence of non-specific symptoms, including headache, back pain, fatigue, anxiety, sleeping problems, and cough.

### 4.2.4 Descriptive details of participants (n=241)

Recruitment of patients into the study resulted in 241 participants (47.2%) of the 510 potential participants.

Of the 241 agreed participants, 102 withdrew over the course of the study, leaving 139 (57.6%) who completed their participation in full.

Of the 139 participants who completed the evaluation, 77 (55%) had been allocated to the immediate advice group and 62 (45%) had been allocated to the delayed advice group.

Of the 445 general practice patients approached in waiting rooms, only 16 (3.5%) wanted to receive immediate advice from an occupational health and safety advisor.
4.2.5 Comparisons of baseline data for completed participants (n=139) and non-participants (n=269)

There was no difference between the number of males and females between the completed participants (males = 38%) and the non-participants (males = 42%).

The completed participants were comprised of 10 (9%) people who asked for an urgent advice appointment, (ignoring those patients who had been referred by their GPs) with only 2 (0.7%) out of 269 non-participants asking for an immediate appointment. This difference was statistically significant (P<0.00).

There was no difference in the mean ages of completed participants (n=139, mean age = 40.1 ± 11.6) and non-participants (n=266, mean age = 38.7 ± 11.2).

There was no difference in the number of people who received formal further education between the completed participant group (59%) and the non-participant group (56%).

There were significantly more full-time workers in the completed participant group (81%) than in the non-participant group (69%).

There were significantly more people who were off sick in the completed participant group (35%) than the non-participant group (20%).

There was no difference in the mean length of sickness absence taken by those sick from work between the completed participant group (n=49, mean length = 4.1 weeks ± 6.9) and the non-participant group (n=53, mean length 2.5 weeks ± 5.2).

At baseline, completed participants reported exposure to significantly more physical hazards (P=0.02), organisational hazards (P=0.00), environmental hazards (P=0.00), psychosocial hazards (P=0.00), and the total number of hazards (P=0.00), than the non-participants.

Completed participants reported significantly more symptoms (5.6) than non-participants (3.1) at baseline (P=0.00).
4.2.6 Symptom reporting at baseline

Table 2 shows the total number of symptoms reported by all participants at baseline, ranked by the number of participants reporting each symptom. The mean total number of symptoms reported by the 510 participants at baseline was 4.1 ± 4, with a minimum of 0 and maximum of 21.

<table>
<thead>
<tr>
<th>Health risk</th>
<th>Symptom reported</th>
<th>N</th>
<th>%</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back pain</td>
<td></td>
<td>188</td>
<td>37</td>
<td>1</td>
</tr>
<tr>
<td>Headache</td>
<td></td>
<td>182</td>
<td>36</td>
<td>2</td>
</tr>
<tr>
<td>Fatigue</td>
<td></td>
<td>128</td>
<td>25</td>
<td>3</td>
</tr>
<tr>
<td>Sleeping problems</td>
<td></td>
<td>126</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>Anxiety</td>
<td></td>
<td>119</td>
<td>23</td>
<td>5</td>
</tr>
<tr>
<td>Coughing</td>
<td></td>
<td>100</td>
<td>20</td>
<td>6</td>
</tr>
<tr>
<td>Forgetfulness</td>
<td></td>
<td>99</td>
<td>19</td>
<td>7</td>
</tr>
<tr>
<td>Blocked / Stuffy nose</td>
<td></td>
<td>96</td>
<td>19</td>
<td>8</td>
</tr>
<tr>
<td>Dry throat</td>
<td></td>
<td>95</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td>Sore throat</td>
<td></td>
<td>83</td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td>Runny nose</td>
<td></td>
<td>77</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>Depression</td>
<td></td>
<td>76</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Sweating</td>
<td></td>
<td>64</td>
<td>13</td>
<td>13.5</td>
</tr>
<tr>
<td>Breathing problems</td>
<td></td>
<td>64</td>
<td>13</td>
<td>13.5</td>
</tr>
<tr>
<td>Indigestion</td>
<td></td>
<td>61</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Watery / Dry eyes</td>
<td></td>
<td>60</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>Hearing problems</td>
<td></td>
<td>52</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>Dizziness</td>
<td></td>
<td>49</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td>Sneezing</td>
<td></td>
<td>48</td>
<td>9</td>
<td>19</td>
</tr>
<tr>
<td>Chestiness</td>
<td></td>
<td>45</td>
<td>9</td>
<td>20</td>
</tr>
<tr>
<td>Upset stomach</td>
<td></td>
<td>39</td>
<td>8</td>
<td>21.5</td>
</tr>
<tr>
<td>Stomach cramp</td>
<td></td>
<td>39</td>
<td>8</td>
<td>21.5</td>
</tr>
<tr>
<td>Nausea</td>
<td></td>
<td>38</td>
<td>8</td>
<td>23</td>
</tr>
<tr>
<td>Chest pain</td>
<td></td>
<td>34</td>
<td>7</td>
<td>24</td>
</tr>
<tr>
<td>Feverish</td>
<td></td>
<td>31</td>
<td>6</td>
<td>25</td>
</tr>
<tr>
<td>Appetite loss</td>
<td></td>
<td>27</td>
<td>5</td>
<td>26</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td></td>
<td>25</td>
<td>5</td>
<td>27</td>
</tr>
<tr>
<td>Bladder</td>
<td></td>
<td>16</td>
<td>3</td>
<td>28</td>
</tr>
<tr>
<td>Hernia</td>
<td></td>
<td>10</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Heart trouble</td>
<td></td>
<td>8</td>
<td>2</td>
<td>30.5</td>
</tr>
<tr>
<td>Sexual problems</td>
<td></td>
<td>8</td>
<td>2</td>
<td>30.5</td>
</tr>
</tbody>
</table>

4.2.7 Hazard reporting at baseline

Table 3 shows the total number of workplace hazards reported by all participants at baseline, ranked by the number of participants reporting each hazard. The mean total number of hazards reported by the 510 participants at baseline was 7.5 ± 6, with a minimum of 0 and maximum of 37.
<table>
<thead>
<tr>
<th>Health risk</th>
<th>N</th>
<th>%</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy Workload</td>
<td>232</td>
<td>46</td>
<td>1</td>
</tr>
<tr>
<td>VDU use</td>
<td>213</td>
<td>42</td>
<td>2</td>
</tr>
<tr>
<td>Feeling Undervalued</td>
<td>180</td>
<td>35</td>
<td>3</td>
</tr>
<tr>
<td>Lack of Reward</td>
<td>169</td>
<td>33</td>
<td>4</td>
</tr>
<tr>
<td>Pressure to do more</td>
<td>167</td>
<td>33</td>
<td>5</td>
</tr>
<tr>
<td>Temperature Problems</td>
<td>157</td>
<td>31</td>
<td>6</td>
</tr>
<tr>
<td>Understaffing</td>
<td>156</td>
<td>31</td>
<td>7</td>
</tr>
<tr>
<td>Dust</td>
<td>153</td>
<td>30</td>
<td>8</td>
</tr>
<tr>
<td>Long Hours</td>
<td>137</td>
<td>27</td>
<td>9</td>
</tr>
<tr>
<td>Boring Work</td>
<td>126</td>
<td>25</td>
<td>10</td>
</tr>
<tr>
<td>Air Conditioning</td>
<td>119</td>
<td>23</td>
<td>11</td>
</tr>
<tr>
<td>Fume</td>
<td>114</td>
<td>22</td>
<td>12</td>
</tr>
<tr>
<td>Poor Support</td>
<td>111</td>
<td>22</td>
<td>13</td>
</tr>
<tr>
<td>Ventilation</td>
<td>108</td>
<td>21</td>
<td>14</td>
</tr>
<tr>
<td>Poor Management</td>
<td>106</td>
<td>21</td>
<td>15.5</td>
</tr>
<tr>
<td>Unreasonable Demands</td>
<td>106</td>
<td>21</td>
<td>15.5</td>
</tr>
<tr>
<td>Insecurity</td>
<td>102</td>
<td>20</td>
<td>17</td>
</tr>
<tr>
<td>Lifting or Handling</td>
<td>99</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>Constant Change</td>
<td>90</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>Loud Noise</td>
<td>87</td>
<td>17</td>
<td>20</td>
</tr>
<tr>
<td>Too Few Breaks</td>
<td>86</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td>Shift Working</td>
<td>83</td>
<td>16</td>
<td>22</td>
</tr>
<tr>
<td>Lone Working</td>
<td>82</td>
<td>16</td>
<td>23</td>
</tr>
<tr>
<td>Unfair Treatment</td>
<td>77</td>
<td>15</td>
<td>24</td>
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<tr>
<td>Lighting</td>
<td>73</td>
<td>14</td>
<td>25</td>
</tr>
<tr>
<td>Solvents</td>
<td>69</td>
<td>14</td>
<td>26</td>
</tr>
<tr>
<td>Driving</td>
<td>66</td>
<td>13</td>
<td>27</td>
</tr>
<tr>
<td>Poor Training</td>
<td>65</td>
<td>13</td>
<td>28</td>
</tr>
<tr>
<td>Incorrect Equipment</td>
<td>61</td>
<td>12</td>
<td>29</td>
</tr>
<tr>
<td>Oils</td>
<td>57</td>
<td>11</td>
<td>30</td>
</tr>
<tr>
<td>Discrimination</td>
<td>51</td>
<td>10</td>
<td>31</td>
</tr>
<tr>
<td>Infections</td>
<td>49</td>
<td>10</td>
<td>32</td>
</tr>
<tr>
<td>Passive Smoking</td>
<td>42</td>
<td>8</td>
<td>33</td>
</tr>
<tr>
<td>Toxic agents</td>
<td>39</td>
<td>8</td>
<td>35</td>
</tr>
<tr>
<td>Unfriendliness</td>
<td>39</td>
<td>8</td>
<td>35</td>
</tr>
<tr>
<td>Vibrations</td>
<td>39</td>
<td>8</td>
<td>35</td>
</tr>
<tr>
<td>Bullying</td>
<td>36</td>
<td>7</td>
<td>37</td>
</tr>
<tr>
<td>Biohazard</td>
<td>31</td>
<td>6</td>
<td>38</td>
</tr>
<tr>
<td>Assault</td>
<td>21</td>
<td>4</td>
<td>39</td>
</tr>
<tr>
<td>Asbestos</td>
<td>18</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>Sexual Harassment</td>
<td>12</td>
<td>2</td>
<td>41.5</td>
</tr>
<tr>
<td>Racial Harassment</td>
<td>12</td>
<td>2</td>
<td>41.5</td>
</tr>
<tr>
<td>Radioactive agents</td>
<td>10</td>
<td>2</td>
<td>43</td>
</tr>
</tbody>
</table>
4.3 PARTICIPANTS' RECOLLECTIONS OF ADVICE INTERVIEWS

The following results concern the specific aspects and attributes of the advice sessions received by the participants, and are broken down into sections concerning the immediate environment where the advice took place, the content of the advice, and the type of advice given. The results are based entirely upon participants' recollections of the advice interviews at the follow-up point and some caution may be used in relation to aspects of recall or accuracy.

4.3.1 Environmental aspects of the advice sessions
Of the 77 occupational advice interviews that were given, 42 (54%) were conducted in private rooms in surgeries, 27 (35%) were conducted in the waiting rooms, with advice given to the remainder by telephone (n=6, 8%) and letter (n=2, 3%).

Ninety-six percent of those who expressed how satisfied they were with the privacy of the advice interview, said they were happy with the privacy they had. Only 4% were not happy with the level of privacy afforded by their advice interview.

There was a moderately high and significant correlation (R=0.66) between the locations where participants preferred the interview to take place, and the actual locations where the interviews took place.

Further, 54% of those who expressed a preference said they would be unhappy about receiving such advice in a waiting room.

4.3.2 Specific aspects of the advice sessions
Ignoring 2 individuals who received advice via the post, of the 75 individuals receiving a personal advice interview, 89% found the length of advice interview to be acceptable, 8% found it to be too long, with 3% finding it too short.

Of the 55 participants who rated how useful such advice had been to them, 51 (93%) rated the advice as “useful” or “very useful”. Four (7%) rated the advice as “not useful” or “not at all useful”. A list of textual comments from the participants, rating the usefulness of the advice given to them, is presented in Appendix 8.

Of the advice given to participants, following the formal verbal advice that was offered, the most common format for advice was writing reports, to either be kept by the participant or also forwarded on (at their discretion) to other parties. However, participants' recollections of what type of advice they received was: general information packs and leaflets (67%), employee rights advice (20%), solutions for equipment (15%), writing official letters (12%) then benefit advice (5%). A caveat to this result is that the majority of the advised participants received reports or had the option of their reports being forwarded on to relevant parties. Such a low percentage of workers "recalling" that they received such reports highlights the caution that should sometimes be used when interpreting data based upon individual's recollections of events. Additionally, what constitutes a "report" to a participant may be open to interpretation, and use of the term "report" in a telephone interview may be open to subjective interpretation if definitive clarification of "what a report is" is not given.

In terms of comprehension of the advice interviews, 65 participants (88%) understood “all of the information” given to them, with 9% understanding “most of it”, and 3% only claiming to understand “some of it”. Concerning the amount of advice given, 58 participants (79%) felt that the amount of advice given was what they expected to receive, with 8 (11%) expecting more, and 7 (10%) expecting less than they were given.
4.3.3 Usefulness of the advice sessions
Eighty-five percent of those who answered claimed that the advice interview did help with
their main problem(s) or area(s) of concern, while 15% claimed that it did not help with their
main problem.

4.3.4 Knowledge of occupational issues
With regard to helping increase understanding of relevant occupational issues, 56% of
participants claimed the advice helped “very much”, 24% claimed it “helped a little”, with
only 12% claiming it was of “no help at all”. The question was not applicable for 6 (8%) of
respondents who received interviews.

4.3.5 Confidence to deal with occupational issues
Concerning helping to increase confidence in dealing with any relevant occupational issues,
60% of participants claimed the advice helped “very much”, 16% claimed it “helped a little”,
with only 17% claiming it was of “no help at all”. The question was not applicable for 5 (7%)
of respondents who received interviews.

4.3.6 Ability to cope with any symptoms
In respect of helping participants cope with symptoms they were reporting (n=56), 25% of
participants claimed the advice helped “very much”, 24% claimed it “helped a little”, with
25% claiming it was of “no help at all”. The question was not applicable for 19 (25%) of
respondents who received interviews, and data was missing for n=2.

4.3.7 Reducing any symptoms
In terms of helping to reduce reported symptoms, 23% of participants claimed the advice
helped “very much”, 22% claimed it “helped a little”, with 28% claiming it was of “no help at
all”. The question was not applicable for 19 (27%) of respondents who received interviews,
and data was missing for n=3.

4.3.8 Reducing visits to see the GP
Concerning the advice in helping to reduce the number of visits made to see their GPs, 19%
of participants claimed the advice helped “very much”, 15% claimed it “helped a little”, with
33% claiming it was of “no help at all”. The question was not applicable for 25 (33%) of
respondents who received interviews, and data was missing for n=3.

4.3.9 Recommendation of the service to others
When participants were asked if they would recommend the occupational health advice
service to others, 96% said they would definitely, 3% were not sure, and 1% said they would
not. A list of textual comments from the participants, explaining why / why not they would
recommend the service to others, and what they did with the advice is presented in section
4.9.

4.3.10 Sharing the advice with colleagues
Participants were asked if they had actively shared any advice they received with their
colleagues. Although data was missing for n=10 (13%), 51 participants (66%) did share the
advice, while only 16 (21%) of the followed up participants did not. What may constitute
“active sharing” to participants, and who is classed as “colleagues” needs to be considered.

4.3.11 Reasons for not sharing the advice with colleagues
For the 16 participants who did not share the advice with others, they were asked what factors
prevented them from sharing the advice, and responses were classed as follows: “advice was
not practical” = 10%; “sharing would cause trouble for themselves at work” = 10%; “did not
feel the need” = 7%; “advice was of no use to their work” = 5%; “worried it might cause
trouble for other colleagues at work” = 3%; and “did not know what to do with the advice, or
who to approach” = 3%.
4.4 COMPARISONS BETWEEN DELAYED AND IMMEDIATE ADVICE GROUPS

At follow-up, participants were asked specific questions about (i) how daily and routine tasks were conducted in their place of work; (ii) how occupational health and safety was organised; and (iii) aspects of return to work after absence (if any).

4.4.1 Day-to-day activities at work
Thirteen questions covered aspects such as how tasks were performed; the workload caused by such tasks; the speed at which they were performed; and whether they were performed with assistance from others. The mean number of changes in day-to-day activities reported by the immediate advice group (n=77) was significantly greater (P<0.01) than for the delayed advice group (n=61). The immediate advice group reported a mean of 3.0 ± 2.5 changes in day-to-day activity, and for the delayed advice group this was 1.7 ± 2.3 changes. Textual examples of specific changes in day-to-day activity are shown in section 4.9.

4.4.1.1 Day-to-day activities at work differing between the groups
The following describes the specific aspects of day-to-day tasks, that were found to be significantly different when compared between the advised and un-advised groups.

Tasks performed differently
At follow-up, participants were asked if they had noticed if routine tasks were performed any differently in their place of employment. Of the immediate advice group (missing=1), 32 (42%) reported tasks were performed differently in the last 6 months, compared with 10 (16%) of the delayed advice group (n=61, missing=1), and this was statistically significant (P=0.001).

Tasks performed with more help
At follow-up, participants were asked if they had noticed if routine tasks were performed with any additional help in their place of employment. Of the immediate advice group, 27 (35%) reported tasks were performed with more help in the last 6 months, compared with 9 (15%) of the delayed advice group (n=61, missing=1). This difference was statistically significant (P=0.007).

Increase in general workload
At follow-up, participants were asked if their workload had increased in the last six months. Of the immediate advice group, 29 (38%) reported increased workload in the last 6 months, compared with 14 (23%) of the delayed advice group. This was statistically different (P=0.05).

Workload of day-to-day tasks
At follow-up, participants were asked if their day-to-day tasks had changed in the last six months. Of the immediate advice group, 22 (29%) reported changed task-load in the last 6 months, compared with 8 (13%) of the delayed advice group (n=61, missing=1). This was statistically different (P=0.04).

Interest in occupational health and safety
At follow-up, participants were asked if they had become more interested in issues of occupational health and safety in the last six months. Of the immediate advice group, 27 (35%) reported increased interest, compared with 11 (18%) of the delayed advice group (n=61, missing=1). This was significantly different (P=0.02).
4.4.1.2 Day-to-day activities at work that did not differ

The following accounts of daily workplace activities reported by participants were observed not to be significantly different between the advice groups.

Improvements in occupational health and safety at work

At follow-up, participants were asked if they had noticed any changes in occupational health or safety in the preceding six months. Of the immediate advice group who responded (n=70, missing=7), 29 (41%) reported improvements. Twenty (34%) of the delayed advice group (n=59, missing=3) also reported health and safety changes in the last preceding six months, and this was not significantly different from the number of immediate advice group participants who did so (P=0.38). A textual description of the types of improvements in health and safety reported by respondents is in section 4.9.

Tasks performed more quickly

At follow-up, participants were asked if they had noticed if routine tasks were performed any quicker in their place of employment. Of the immediate advice group, 15 (19%) reported tasks were performed quicker in the last 6 months, compared with 9 (16%) of the delayed advice group. There was no significant difference between the groups.

Tasks performed less quickly

At follow-up, participants were asked if they had noticed if routine tasks were performed any slower in their place of employment. Of the immediate advice group, 15 (19%) reported tasks were performed more slowly in the last 6 months, compared with 6 (10%) of the delayed advice group. There was no significant difference between the groups.

Tasks performed with more equipment

At follow-up, participants were asked if they had noticed if routine tasks in their place of employment were performed, on the whole, with additional equipment. Of the immediate advice group, 13 (17%) reported use of more equipment in the last 6 months, compared with 8 (13%) of the delayed advice group. There was no significant difference between the groups.

Decrease in general workload

At follow-up, participants were asked if their workload had decreased in the last six months. Of the immediate advice group, 10 (13%) reported decreased workload in the last 6 months, compared with 7 (11%) of the delayed advice group. This was not statistically different.

Returning to a different job for same employer

At follow-up, participants were asked if their job had changed in the last six months. Of the immediate advice group, 11 (14%) reported changing jobs in the last 6 months, compared with 7 (11%) of the delayed advice group (n=61, missing=1). This was not significantly different.

Returning to a different employer

At follow-up, participants were asked if they had changed employer in the last six months. Of the immediate advice group, 8 (10%) reported changing employer in the last 6 months, compared with 5 (8%) of the delayed advice group. This was not significantly different.
4.4.2 Organisation of health and safety at workplaces
Sixteen questions covered aspects of how occupational health and safety were organised in the workplace, and covered such areas as how risk management was used; safety representatives; health and safety inspections; education and staff numbers. The mean number of changes in day-to-day activity reported by the immediate advice group (n=75) was significantly greater (P<0.01) than for the delayed advice group (n=60). The immediate advice group reported a mean of 3.9 ± 3.6 changes in the organisation of health and safety, and for the delayed advice group this was 2.1 ± 2.4 changes.

4.4.2.1 Organisation of health and safety differing between the groups
The following accounts of the organisation of provision of workplace health and safety were observed to be significantly different between the advised and un-advised groups.

New safety committees
Participants were asked if they had noticed new or increased numbers of safety committees in their place of employment. Of the immediate advice group, 7 (9%) reported the formation of new safety committees, compared with 0 of the delayed advice group. This was significantly different (P=0.04).

Actual changes in health and safety
Participants were asked if they knew of actual changes in how health and safety was organised in their place of employment. Of the immediate advice group, 23 (30%) reported actual changes in health and safety, compared with 12 (19%) of the delayed advice group. This was significantly different (P=0.01).

Contact made with health and safety inspectors
Participants were asked if they knew if contact had been made with health and safety inspectors in their place of employment. Of the immediate advice group, 15 (19%) reported contact had been made with health and safety inspectors, compared with 12 (3%) of the delayed advice group. This was significantly different (P<0.01).

Workplace visits made by health and safety inspectors
Participants were asked if they knew if workplace visits had been made by health and safety inspectors in their place of employment. Of the immediate advice group, 23 (30%) reported visits had been made, compared with 7 (11%) of the delayed advice group. This was significantly different (P=0.01).

Improvements demanded by health and safety inspectors
Participants were asked if they knew if health and safety inspectors visiting their place of employment had requested improvements. Of the immediate advice group, 13 (17%) reported changes had been requested, compared with 0 of the delayed advice group. This was significantly different (P<0.01).

4.4.2.2 Aspects of health and safety organisation that did not differ
The following accounts of the organisation of provision of workplace health and safety were observed not to be significantly different between the advised and un-advised groups.

Use of risk management
Participants were asked if they had noticed greater use of risk management in their place of employment. Of the immediate advice group, 19 (25%) reported greater use of risk management, compared with 17 (27%) of the delayed advice group. There was no significant difference between the groups.
Mention of risk management
Participants were asked if they had noticed greater mention of risk management in their place of employment. Of the immediate advice group, 29 (38%) reported greater mention of risk management, compared with 16 (26%) of the delayed advice group. There was no significant difference between the groups.

Number of safety representatives
Participants were asked if they had noticed new or increased numbers of safety representatives in their place of employment. Of the immediate advice group, 13 (17%) reported new or increased numbers of safety representatives, compared with 6 (10%) of the delayed advice group. There was no significant difference between the groups.

Number of safety officers
Participants were asked if they had noticed new or increased numbers of safety officers in their place of employment. Of the immediate advice group, 9 (12%) reported new or increased numbers of safety officers, compared with 6 (2%) of the delayed advice group. There was no significant difference between the groups.

Planned changes in health and safety
Participants were asked if they knew of any planned changes in health and safety in their place of employment. Of the immediate advice group, 22 (29%) reported planned changes in health and safety, compared with 10 (16%) of the delayed advice group. There was no significant difference between the groups.

Actual changes in health and safety
Participants were asked if they knew of actual changes in how health and safety was organised in their place of employment. Of the immediate advice group, 23 (30%) reported actual changes in health and safety, compared with 12 (19%) of the delayed advice group. There was no significant difference between the groups.

Workplace visits made by other professionals or experts
Participants were asked if they knew if workplace visits had been made by other health and safety professionals in their place of employment. Of the immediate advice group, 17 (22%) reported visits had been made, compared with 11 (18%) of the delayed advice group. This was not significantly different.

Warning signs
Participants were asked if they were aware of more warning signs being displayed in their place of employment. Of the immediate advice group, 21 (27%) reported more signs were being displayed, compared with 12 (19%) of the delayed advice group. This was not significantly different.

Informal education / training sessions
Participants were asked if they were aware of more informal training, or “toolbox talks” in their place of employment. Of the immediate advice group, 19 (25%) reported more training was taking place, compared with 8 (13%) of the delayed advice group. This was not significantly different.

Increased staff numbers
Participants were asked if they were aware of any increase in staff numbers in their place of employment. Of the immediate advice group, 28 (39%) reported staff increases, compared with 8 (13%) of the delayed advice group. This was significantly different (P<0.01). Conversely, when asked of any decrease in staff numbers, only 14 (18%) of the immediate advice group confirmed this, compared with 11 (18%) of the delayed advice group. This was not significantly different.
4.4.3 Returning to work following absence

The thirty-eight participants who had been off work sick at the point of the recruitment were asked at follow-up about seven factors that are understood to assist with, or signify a successful return to work for those workers who have been of sick. Such factors included the options of phased return to working; modified working; assistance with travel; returning to a different job for the same employer; returning to a different job for a different employer; moving into a new area of work altogether; and career guidance. The mean total number of factors confirmed by IAG participants who returned to work following absence (n=24) was 1.0 ± 1.0, with DAG participants who returned to work (n=14) reporting a mean of 0.2 ± 0.6 factors. This difference was significant (P=0.01). Occurrence of each of the seven factors assisting / signifying a return to work are explained below.

4.4.3.1 Return to work factors not differing between the groups

The following accounts of the factors associated with successful return to work following absence from the workplace were not observed to be significantly different between the advised and un-advised groups.

Phased return to work

Thirty-eight participants had been off-work sick at the baseline / recruitment point of the evaluation. They were asked about a variety of aspects concerning their return to work. Those participants who had been off sick were asked if they had, or were offered a phased return to work following their absence. Of those in the immediate advice group who returned to work following absence (n=24), 8 (33%) reported a phased return, compared with 2 (14%) participants from the delayed advice group who returned to work (n=14). This was not significantly different.

Altered or modified tasks upon return

Those participants who had been off sick were asked if they had, or were offered, modified tasks upon return to work. Of those in the immediate advice group who returned to work following absence (n=24), 11 (46%) reported modified tasks upon return to work, compared with 1 (7%) participant from the delayed advice group who returned to work (n=14). This was not significantly different.

Assistance with travel to/from work by employer

Those participants who had been off sick were asked if they had, or were offered, assistance with travel to / from work. No participants in either the immediate or delayed advice groups had been offered such assistance.

Returning to a different job with the same employer

Those participants who had been off sick were asked if they had returned to a different job with the same employer. Of those in the immediate advice group who returned to work following absence (n=24), 3 (13%) reported returning to a different job with the same employer, compared with 1 (7%) participant from the delayed advice group who returned to work (n=14). This was not significantly different.

Returning to a different job with a different employer

Those participants who had been off sick were asked if they had returned to a different job with a different employer. Of those in the immediate advice group who returned to work following absence (n=24), 1 (4%) reported returning to a different job with a different employer, compared with 0 from the delayed advice group who returned to work (n=14). This was not significantly different.

Moving to a different type of work altogether

Those participants who had been off sick were asked if they had returned to work, but in an entirely different type of job. Of those in the immediate advice group who returned to work
following absence (n=24), 1 (4%) reported returning to a different job with a different employer, compared with 0 from the delayed advice group who returned to work (n=14). This was not significantly different.

**Help with career guidance since returning to work**
Those participants who had been off sick were asked if they had received help concerning career guidance. Of those in the immediate advice group who returned to work following absence (n=24), 2 (8%) reported returning to a different job with a different employer, compared with 0 from the delayed advice group who returned to work (n=14). This was not significantly different.
4.4.4 Well-being in the workplace

4.4.4.1 Emergence of recent / new hazards in the workplace
At follow-up, participants were asked if there had been any incidences of new problems recently emerging in the main workplace. Twenty-five percent (n=19) of the immediate advice group reported newly emerging problems, while 23% (n=14) of the delayed advice group did so. This was not significantly different.

4.4.4.2 Hazards noticed in the workplace
At follow-up, the number of hazards in the workplace reported by participants (collated under the categories of “Physical”, “Psychosocial”, “Organisational” and “Environmental”. The mean number of hazards reported by the delayed and immediate advice groups at follow-up are shown in table 4.

<table>
<thead>
<tr>
<th>Hazard type</th>
<th>Immediate advice group, n = 77</th>
<th>Delayed advice group, n = 62</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>0.7 ± 1.1</td>
<td>0.4 ± 0.7</td>
<td>1.96</td>
<td>0.05</td>
</tr>
<tr>
<td>Organisational</td>
<td>1.6 ± 2.0</td>
<td>1.2 ± 1.8</td>
<td>1.03</td>
<td>0.30</td>
</tr>
<tr>
<td>Environmental</td>
<td>1.6 ± 1.6</td>
<td>1.2 ± 1.3</td>
<td>1.45</td>
<td>0.14</td>
</tr>
<tr>
<td>Psychosocial</td>
<td>3.0 ± 2.5</td>
<td>2.4 ± 2.1</td>
<td>1.45</td>
<td>0.14</td>
</tr>
<tr>
<td>Total</td>
<td>6.8 ± 5.5</td>
<td>5.1 ± 4.3</td>
<td>1.84</td>
<td>0.06</td>
</tr>
</tbody>
</table>

This table shows that at follow-up, the immediate advice group participants reported, on the whole, significantly more physical hazards in the workplace than the delayed advice group participants. There were no other differences in the total number of organisational, environmental, or psychosocial hazards reported, although the overall sum number of all hazards was almost significantly greater in the immediate advice group.

4.4.4.3 Symptoms noticed by respondents
At follow-up, the number of symptoms reported by participants was collected, and the mean number of symptoms reported by the immediate advice group and the delayed advice group are shown in table 5.

<table>
<thead>
<tr>
<th>Advice group</th>
<th>Mean total symptoms</th>
<th>Standard deviation</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate n = 77</td>
<td>1.4</td>
<td>2.0</td>
<td>-0.26</td>
<td>0.79</td>
</tr>
<tr>
<td>Delayed n = 62</td>
<td>1.5</td>
<td>2.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This table shows that the mean number of symptoms reported at follow-up did not differ significantly between the immediate and delayed advice group participants.
4.5 Summary of comparisons between immediate and delayed advice groups

4.5.1 Significant differences between the groups

At follow-up, significantly more IAG participants than DAG participants reported that routine and specific tasks were performed noticeably differently than before. However, no differences were observed between participants in terms of tasks being performed faster or slower than before, the range of new or different equipment used in routine tasks, or any decreasing in workload for routine tasks.

IAG participants reported getting more help with daily tasks than DAG participants, although they also reported significantly more increases in general workload, and increases in the task-load of day-to-day tasks.

IAG participants who were off work sick at the time of recruitment into the evaluation, reported, at baseline, a significantly greater total of factors associated / signifying a successful return to work than DAG participants. However, this difference could not be attributed to any of the seven specific hallmarks of a successful return to work, but was observed only on the sum of those factors between the IAG and DAG participants.

Significantly more IAG participants reported at follow-up that they had become interested in health and safety issues than DAG participants.

IAG participants reported significantly more physical hazards in the workplace at follow-up than the DAG participants. There was no difference in the number of organizational, environmental or psychosocial hazards, or the total number of hazards reported at follow-up between the groups.

4.5.2 Areas of no difference between the groups

There were no significant differences in the number of IAG and DAG participants who noticed changes in health and safety in the previous 4-6 months.

There were no differences between the IAG and DAG in the proportion of participants who changed their jobs or their employers by follow-up.

The number of new / recently emerged hazards noticed in the workplace in the previous 4-6 months did not differ between the IAG and DAG participants.

The number of symptoms reported at follow-up did not differ significantly between the IAG and DAG participants.
4.6 Participants who received advice immediately

4.6.1 Changes over the course of the evaluation

Within-participants comparisons were made to compare any changes in (i) hazard exposures and (ii) well-being / symptom reporting, in those individuals in the immediate advice group, both before and after receiving occupational health advice. Such within-participants comparisons were performed in order to minimize any participant variability that may have arisen in the between (advice) group comparisons.

4.6.1.1 Hazard reporting

Table 6 shows the number of hazards (under each major category heading) reported by completed immediate advice group participants, both before and then 4-6 months after their advice interviews. The mean number of hazards reported in each of the four groups (except for psychosocial hazards) and the total number of hazards reported was significantly lower in the months after the advice than before,

<table>
<thead>
<tr>
<th>Hazard type</th>
<th>Before advice</th>
<th>After advice</th>
<th>N</th>
<th>DF</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>1.4 ± 1.5</td>
<td>0.7 ± 1.1</td>
<td>77</td>
<td>76</td>
<td>4.52</td>
<td>&lt;0.00</td>
</tr>
<tr>
<td>Organisational</td>
<td>2.9 ± 2.5</td>
<td>1.6 ± 2.0</td>
<td>77</td>
<td>76</td>
<td>5.28</td>
<td>&lt;0.00</td>
</tr>
<tr>
<td>Environmental</td>
<td>2.7 ± 1.7</td>
<td>1.6 ± 1.6</td>
<td>77</td>
<td>76</td>
<td>5.56</td>
<td>&lt;0.00</td>
</tr>
<tr>
<td>Psychosocial</td>
<td>3.6 ± 2.6</td>
<td>2.9 ± 2.5</td>
<td>77</td>
<td>76</td>
<td>1.72</td>
<td>0.08</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10.6 ± 6.0</strong></td>
<td><strong>6.7 ± 5.5</strong></td>
<td>77</td>
<td>76</td>
<td><strong>5.73</strong></td>
<td>&lt;0.00</td>
</tr>
</tbody>
</table>

Table 7 shows the ranked number of hazards reported both before and then 4-6 months after the advice interviews, ranked by the percentage of participants reporting each hazard. Changes in the rankings are signified by arrows showing either an increased or decreased ranking from before the advice to the follow-up period. The significance of any change in the number of participants reporting each hazard was calculated using a Wilcoxon rank test, and was based on the percentage of respondents reporting each hazard, both before advice and at the follow-up interview. It can be seen that significant reductions in exposure to the following hazards occurred: VDU use; Pressure to do more; Poor management; Understaffing; Temperature problems; Dust; Lifting and handling; Fume; Ventilation; Air conditioning, Constant change; Long hours; Too few breaks; Discrimination; Oils; Incorrect equipment; poor training; Bullying; Shift working; Toxic agents; Unfriendliness; Infections; Solvents; and Bio Hazards.

No significant increases in the percentage of participants reporting exposure to any specific hazards were observed. Only two hazards (Radioactive agents and Racial Harassment) did not change in the percentage of participants reporting them at the follow-up interview. Every other hazard decreased in terms of the percentage of participants reporting them at follow-up compared with reports before the advice interviews.
<table>
<thead>
<tr>
<th>Health risk</th>
<th>Before advice</th>
<th></th>
<th>After advice</th>
<th></th>
<th>Sig.</th>
<th>Change in rank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>Rank</td>
<td>N</td>
<td>%</td>
<td>Rank</td>
</tr>
<tr>
<td>Heavy Workload</td>
<td>50</td>
<td>65</td>
<td>1</td>
<td>43</td>
<td>56</td>
<td>1</td>
</tr>
<tr>
<td>Feeling Undervalued</td>
<td>46</td>
<td>60</td>
<td>2</td>
<td>37</td>
<td>48</td>
<td>2</td>
</tr>
<tr>
<td>VDU use</td>
<td>38</td>
<td>49</td>
<td>3</td>
<td>21</td>
<td>27</td>
<td>8</td>
</tr>
<tr>
<td>Pressure to do more</td>
<td>37</td>
<td>48</td>
<td>4</td>
<td>22</td>
<td>29</td>
<td>5.5</td>
</tr>
<tr>
<td>Lack of Reward</td>
<td>36</td>
<td>47</td>
<td>5</td>
<td>26</td>
<td>34</td>
<td>4</td>
</tr>
<tr>
<td>Poor Management</td>
<td>34</td>
<td>44</td>
<td>6</td>
<td>20</td>
<td>26</td>
<td>10</td>
</tr>
<tr>
<td>Understaffing</td>
<td>31</td>
<td>40</td>
<td>7</td>
<td>18</td>
<td>23</td>
<td>12</td>
</tr>
<tr>
<td>Poor Support</td>
<td>28</td>
<td>36</td>
<td>9</td>
<td>29</td>
<td>38</td>
<td>3</td>
</tr>
<tr>
<td>Temperature Problems</td>
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↑ or ▼ indicates a change in the ranking of the frequency of health risks from before to after advice.
4.6.1.2 Symptom reporting

Table 8 shows that the total number of symptoms reported by completed participants from the immediate advice group were significantly lower at follow-up than at baseline. Table 9 shows the ranked number of symptoms reported both before, and then 4-6 months after the advice interviews, ranked by the percentage of participants reporting each symptom.

### Table 8
Mean number of symptoms reported by completed IAG participants at follow-up

<table>
<thead>
<tr>
<th>No. symptoms</th>
<th>Before advice</th>
<th>After advice</th>
<th>N</th>
<th>DF</th>
<th>T</th>
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<td>6.1 ± 4.8</td>
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<td>76</td>
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### Table 9
Confirmation of presence of symptoms reported by completed IAG participants

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<tr>
<th>Health risk</th>
<th>Before advice</th>
<th>After advice</th>
<th>N</th>
<th>%</th>
<th>Rank</th>
<th>N</th>
<th>%</th>
<th>Rank</th>
<th>Sig.</th>
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<td>Blocked / Stuffy</td>
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<td>0.31</td>
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↑ or ↓ indicates a change in the ranking of the frequency of symptoms from before to after advice
Changes in the rankings of symptoms are signified by arrows showing either an increased or decreased ranking from before the advice to the follow-up period. The significance of any change in the number of participants reporting each symptom was calculated using a Wilcoxon rank test, and was based on the percentage of respondents reporting each symptom, both before advice and at the follow-up interview.

Significant decreases in the percentage of participants reporting symptoms at follow-up was observed for all of the symptoms in the evaluation, except for Feverishness; Hernia; Diarrhoea; Heart trouble; Sexual problems; and Bladder problems.

4.7 SUMMARY OF PARTICIPANTS BEFORE AND AFTER ADVICE

At follow up, the participants from the IAG reported significantly fewer organisational, physical, and environmental hazards, as well as the total number of hazards than they reported at baseline. Reporting of psychosocial hazards had not decreased.

Every individual hazard, at follow-up, was either significantly less prevalent or no more prevalent than at baseline, among the IAG participants.

The mean number of total symptoms reported by participants from the IAG was significantly fewer at follow-up than at baseline. There were also statistically significant reductions in 25 (of the 31) different symptoms listed in the study by follow-up. None of the symptoms had increased in prevalence between baseline and follow-up.
4.8 CASE-STUDIES OF INDIVIDUAL PARTICIPANTS

This section contains a selection of brief case-studies of some of the participants who took part in the evaluation, their occupational problems, the advice they received, and the remedy or outcome of their particular situations.

4.8.1 Case #1 – The Political Lobbyist (JM)
Female, White, Aged 35, Married, Political lobbyist and researcher for two animal aid organisations. JM visited her GP with an illness that may have been brought on by her working excessively long hours and her heavy workload. This has meant working days in excess of 11 hours, phone calls at home from colleagues into the late evening and being torn between work and rushing to pick up her child.

The occupational health advisory service suggested simple measures, such as keeping work strictly to regular hours and not turning on her home PC in the evenings. Additional practical steps such as turning off mobile communication devices such as phones and pagers were also suggested. Although JM did not want part-time working, the option of part-time contracting to fit into childcare was also offered by her employer, although this would be on less favourable terms. This was discussed but rejected by JM.

As a result of the advice, JM e-mailed her manager and negotiated for the terms that were suggested. JM stated that she would recommended the service as it ‘gives you empowerment’, and she felt that health and safety changes had taken place at her workplace – such as decreasing workload, the job being changed to suit her, and a new line manager. This was done despite an organisational block on creating new / additional posts. Staff numbers also increased within her organisation. JM felt that her problems had been resolved by following and implementing the advice she was given.

4.8.2 Case #2 – The Senior Lecturer (JG)
Female, White, Aged 56, Divorced, Senior Lecturer (of 32 years). JG consulted her doctor regarding a number of health problems thought to be aggravated by work and resulting in stress related symptoms. JG reported a heavy workload, steadily increasing, particularly over the last two to three years, to the point where it had become intolerable. JG reported working additional hours at home in order to combat the workload she faced, but stated that it was not worth approaching her line manager as he never listened, and did not accept that she should be able to plan her own work timetable. JG also reported her line manager was unfriendly and could bully her, often shouting at people. Other staff also reported low morale and were regularly off sick, with some leaving the job, which JG attributed to the line manager.

Her GP stated that she needed to find ways in which to reduce her workload in order to remain and continue working productively, and he had previously referred her for stress-counselling. As a result of the input from the occupational health advisory service, JG shared information with her colleagues and talked to personnel, the health and safety officer and a union representative. Reactions from all those contacted was good, and JG reported that health and safety changes have since happened at work, with management addressing bullying in the workplace and stress-management awareness. The workload had decreased, with her job and timetabling issues changed to suit her, and although JG chose to take early retirement as a result of the stressful experiences she previously encountered, she acknowledged that organisational changes were evident prior to her retirement.
4.8.3 Case #3 – The Railway Maintenance Worker (JW)
Male, White, Aged 56, Partner, Railway Track maintenance (of 28 years). This case demonstrates how difficult it can be to get people to stop accepting danger as part of the job, and the "it goes with the territory" mentality. JW often worked in tunnels and experienced poor ventilation and loud noise, and had been identified as regularly being exposed to fumes, dust and oils.

At time of the participant’s advice interview, he was visiting his GP due to an accident at work resulting in an injury to his foot and leg. He was working at Potters Barr, putting out protectors for possession of a line when he stepped on an icy sleeper and slipped. His pain caused him to ‘sit out’ the rest of the shift. He did not report the accident at the time, although his supervisor had been present and was aware of the accident and he was sure that he would report it. JW stated that he had an accident a couple of years previously as a passenger in the work van, and at the time he broke a couple of ribs and had been off work due to the accident but had not made a claim against the employer, even though other colleagues had done so.

Personal Protective Equipment and Clothing had been available to wear (such as ear protectors and dust masks) although he and the majority of his colleagues did not routinely wear them. The team supervisor was often aware of the disregard of PPE but did not enforce the use of it. JW pointed out that when he first worked on the railways, nobody used PPE (this being prior to the Health & Safety at Work Act 1974 and the beginnings of organisations implementing the act.) implying that he had been right before, and could not see what all the fuss was about regarding health and safety. He also claimed that it slowed the job down and made working difficult. The occupational health and safety advisor explained to JW that PPE is provided to employees as a last resort, after experts have carried out the necessary risk assessments and have been unable to eliminate the hazards. JW felt that the risk to his health from his work (without PPE) was low, however, and would not accept the need for regular employee screening and pre-employment screening in such jobs. JW would not accept the need of such screening, and he and the advisor had to agree to disagree on the point.

4.8.4 Case #4 – The Learning Support Assistant (PS)
Female, Caribbean, Aged 37, Single. PS was suffering from back pain related to work, and the causes of the back pain were identified by the occupational health and safety advisor as sitting on small and uncomfortable chairs (designed for children) and working in awkward postures, such as leaning forward when working with children. PS received advice from the service about posture and ergonomic principles and aspects of her job.

In her follow-up interview, she gave the example of teachers and assistants in her school being instructed to stand on classroom tables in order to put up children’s work on display. She raised that she thought this was unsafe and the instruction was almost immediately retracted by the school, and the management of the school then stated that if staff had an accident when standing on tables to put up displays, they would be doing so in full knowledge that they should not, and would therefore lose the right to claim compensation. PS stated in her follow-up interview that she had become more interested in health and safety and may look towards taking on a role of this nature in her workplace.

4.8.5 Case #5 – The Production Supervisor (MX)
Male, White, 30. MX has been working in a specialist manufacturing firm for the last 5 years, and had previously worked at the firm for 8 years after doing his apprenticeship there. He enjoyed his job and gets on well with his colleagues, and was promoted to production supervisor two years ago.
When he was seen he had been suffering from acute anxiety for the previous 12 weeks, with very poor sleep, and feeling low. He had spent his recent 2-week holiday worrying about what he would find at work upon his return. The company he works for is now owned by a French multinational company, and for the previous year it had been changing to “lean manufacturing”, with no stocks being kept. He agreed that production methods at his factory needed to be modernized. MX reported to two managers, one of them was newly appointed to the firm. This manager had introduced new work timings to the factory. The production team that MX supervised had severe problems producing work of their previous high quality, at the volume required, and MX saw their point of view.

Three months before he came to the GP, on the day he had returned from holiday, he was called into a ‘disciplinary’ hearing, with the new manager. He was very shocked by the way he was treated at this meeting, as his relations with his managers had always been good, he trusted them, and he thought they trusted him. He asked to be relieved of some of his duties while he was at the meeting. To his surprise it was only after this had happened that he became very anxious. New working times turned out to be flawed, and had recently been re-done, including time for internal transport, so work is now going more smoothly, and M.’s relations with his team are happy. However he was still extremely anxious.

MX was advised by the advisory service about managing his sleep problems, and given information on ACAS guidance on disciplinary procedures, which showed that he was right in feeling that he had been unfairly treated. The main help offered to him was a chance to talk about everything that had happened to him at work, and his feelings of being unsupported by his long standing manager, and the conflicts that had emerged with his new manager. All in all he suffered from work related stress problems for about a year, though he chose to, and was able to continue working for most of that time.

4.8.6 Case #6 – The Road Repair Construction Worker (JX)
Male, White, 50’s. JX works on road repairs, a job which includes very heavy work. He had been off sick for 6 months after suffering a heart attack, and then considered returning to his work, although still suffering from some occasional chest pain, which was being investigated. His supervisor suggested a return to light work, such as pumping out drains with a machine, where he would be trained on relevant dangers, such as sewer gases, and working in confined spaces. However, the job would still require some occasional heavy work, such as the lifting of manhole covers. Upon seeing an advisor, JX was given information about lifting equipment that he could ask to be provided for this job, and additional information was also provided about sewer gases and his rights to health and safety training. It was also suggested that he ask for a phased return to work in view of his ongoing chest pains, while awaiting the results of further investigation.

4.8.7 Case #7 – The Croupier (PX)
Male, White, 30’s PX worked in a casino as a croupier. After agreeing to take part in the evaluation, PX raised his concerns about the stale air and cigarette smoke in the working environment, stress due to the style of management, and high workload. The advisor provided him with information on sick building syndrome, ventilation at work and passive smoking. He took it to work and discussed it with his colleagues. Since then, the air conditioning has been checked and a fault that was discovered has been corrected. Other colleagues of PX had previously complained about the air quality at work. There has been a definite improvement in air quality at work since. Staffing levels have also improved and managers have been sent on health and safety courses. “Small things” have been altered and reported that “people are being nicer”. He doesn’t know where the changes have come from, but “if people keep quiet nothing will be done”. He commented that the information that he had been given by the advisor had been a big help.
4.8.8 Case #8 – The Audiovisual Equipment Engineer (SX)
Male, White, 63. SX was a 63 year old self-employed audiovisual equipment engineer. He had severe arthritis and was struggling to carry out his job because it involved heavy lifting and moving. When seen by the health and safety advisor, their discussion centred on the options open to him: to finish working; seek alternative work; or modify his current job. As a self-employed individual there were limited opportunities for him to modify his work or to get help with manual handling tasks. His income was low and he had entitlement to unclaimed means-tested social security benefits. As a result of the advice interview, he investigated the option of finding alternative work, but felt that his age counted against him when he applied for jobs that he had seen advertised. He applied for the social security benefits to which he was entitled and finished working and successfully claimed Incapacity Benefit. Although he chose to leave, the health and safety advisor’s help in choosing the best option was invaluable to him.
4.9 QUALITATIVE REPORTING OF PARTICIPANTS’ VIEWS

Data presented in the following section is a collection of the textual comments raised by participants in the completion of their screening questionnaires and follow-up interviews.

4.9.1 Comments concerning the usefulness of the occupational health advice

The following list is a selection of comments offered by participants in response to the following question, categorized as either positive or negative statements:

**Question B1. About the advice.**

“In your own words, briefly say how useful the advice was to you.”

**Positive**

Already aware of the information  
The advice confirmed what I thought I already knew  
Advice was good, but could not use it in my current situation  
Useful, as my doctor had refused to see me  
Extremely useful  
I felt a ease after  
Fine  
Good  
Good in theory – but hard to change management at work  
Good to talk to someone  
Helped  
Helped for a few months  
Helpful  
Helps to have someone to talk to  
Info was useful  
Informative  
Informative but some I knew already  
It made a difference  
Pointed me in the right direction  
Put me at ease  
Quite good  
Quite helpful  
Quite useful  
Really useful  
Things made clearer for me  
Useful  
Useful but was fired at work anyway  
Useful for putting a claim in  
Very good but didn't use it  
Very helpful  
Very reassuring  
Very useful and improvements were made

**Negative**

Already knew it, but it was ineffective  
Can’t recall any of the advice I was given  
Need help to implement the knowledge we’re given  
Not good  
Not useful  
I was never sent the information I was promised  
Useful but still have problems at work
4.9.2 Comments concerning if participants’ recommendation of the service to others

The following list is a selection of comments offered by participants in response to the following question, categorized as either positive or negative statements:

Question C2
“Did you / would you recommend the service to others? Why?”

Positive – Yes
Could help others too
For the basic points, yes
Gives the confidence to change things
I am a novice, so very helpful
I did recommend it
Expert advice
People feel powerless at work
Few people who are not aware need to be informed
Gives empowerment
Gives more insight
Many workers are frightened to open their mouths
Good advice
Good service
Helped
Helpful
Helpful and supportive
Helps to share problems
Informs you as to what you can do
It helps
Made me more confident
More awareness
Necessary information
Need for support
Need to be in a position to see someone at work
Need to realise rights
People don't understand their rights
People need to know where they stand
People work too hard and need help
The advisors did it [passed info to colleague] for me
The young may especially benefit form the advice
Useful
Very helpful
Very relevant
Very useful
Workplace visit even ore useful

Negative - No
Useless
More info needed to be given out on benefits advice
4.9.3 Comments concerning what participants did with the advice they received

The following list is a selection of comments offered by participants in response to the following question, categorized as either positive or negative statements:

Question C1
“After the interview, what did you do with the advice?”

Positive
Told one person at work
Acted on it
Acted on it but did not share it
Acted on the advice myself
Acted on the advice and talked to the manager
Asked advice at work
Shared info with the boss
Shared info with colleague and supervisor
Told colleagues
Told health and safety officer
Discussed phase return with husband [manager] but decided to go back in one go
Emailed the manager
Shared info with friends at work
Shared info with girls at work
Shared info with health and safety bus support manager
Helped myself
Told human resources manager
Kept advice to self
Soon left the job afterwards
Left the job immediately
Read it all
Read through it myself
Saw solicitor, made a claim for vibe white finger
Spoke to manager
Told husband
Told wife
Worked it out with my manager, wife and personnel

Negative
No
Not yet acted on it
Little – it was difficult to put into action
4.9.4 Comments concerning why some participants did not share the advice they received

The following list is a selection of comments offered by participants in response to the following question, categorized as either positive or negative statements:

**Question C4**

“If you did not share the advice, please say why not?”

**Negative**

- Employer was not prepared to do anything
- Fear of victimization
- Fire officer came to shut us down anyway
- I am not in a position to share advice
- Left job
- Managers do not appreciate help
- No colleagues to share with
- No need
- Private and personal matter
- Was not appropriate
- Was not relevant
- I work alone
4.9.5 Comments concerning noticeable workplace improvements

The following list is a selection of comments offered by participants in response to the following question, categorized as either positive or negative statements:

Question D2
“There are many things employers can do when trying to improve the workplace. Please list any changes that you have noticed in your workplace in the last 6 months.”

Positive
Better extraction, ventilation and protection
Better working environment
Fewer trouble-makers still working here
Children banned from premises
Limits on lifting [furniture]
Fire drills
Keyboard rests
Flat screen VDUs
More space
New desks
Leaflets / handouts
New glasses and safety boots
Monthly routine safety checks
HS inspectors due on unannounced visits
Re-design of some equipment
Improved workspaces
Increased general awareness by management
More fans
More inspections
More bosses listen to us
Newer premises with better ventilation
New policies and equipment
Audit
Ongoing changes to air conditioning
Staff ratios re-calculated
Re-design of work equipment and PPE
Re-design of handrails
Re-designed work environment
Revised health and safety manuals
Managers have addressed stress management and bullying
Changed line manager
Company now very health and safety aware
Health and safety training
More breaks
New lifting equipment
I refused to do something dangerous when told to by boss [stand o chair]
I share my workload more, and it is now negotiated
I have taken IOSH training
Tasks now done exactly as per policy
4.9.6 Comments on how to improve the advisory services

The following list is a selection of comments offered by participants in response to the following question, categorized as either positive or negative statements:

**Question E4**

*Do you have any suggestions for how the Newham / Sheffield Occupational Health Advice Service at your general practice could be improved?*

**Positive**

Advertise
Make the service available for all workers
Have better access to the services
Go into people’s workplaces
Have touring road shows
Have a phone line dedicated to workers’ problems
Have more GPs referring patients to the services
Have more influence over the employers
Provide a drop-in help desk
Increase publicity of the services
Improve advertising
Allow union representatives to refer people to the services
Improve the type of information available for the workers
Make waiting time for appointments as short as possible
Increase the number of leaflets to give out
Inform the local population of what the services do
Involve professional marketing services
Increase publicity of the services in GP surgeries
Increase publicity in workplaces
Increase publicity in schools
Have more literature describing the service to hand
Have more staff available
Keep up to date with changes in benefits and benefit advice
Have someone available on demand to talk through the leaflets
Let users know what the purpose of the service is
Target specific industries, such as call-centres
Explain what the service does for people so they know what to expect
Offer services to local businesses
Place publicity posters on bus routes
Keep offering informal chats in surgeries
Provide regular clinics in surgeries

**Negative**

Change the service name to something easier to remember
Change the name of the service to something less formal / official
The formal-sounding name might make some people wary of using the service
4.10 WORKER TESTIMONIALS

Data presented in the following section is a collection of some of the written statements provided by participants after they received occupational health advice from the advisory services.

4.10.1 Testimonial #1 - The Team Leader in a Benefits Advice Department
A female team leader worker in a benefits advice department was referred to the occupational health advisory service by her general practitioner who was concerned about the level of stress the worker experienced, as well as issues concerning bullying from other staff. The verbal advice and literature given to the worker from an occupational health and safety advisor helped the client approach her manager for further help. The worker wrote: “I realised I was not going mad, and that right is on my side. Having the health and safety advisor listening to me helped me a lot”.

4.10.2 Testimonial #2 - The Support Worker
A female support worker for a mental health charity was referred to the occupational health advisory service by her general practitioner. The GP and the worker believed that stress in the workplace was becoming a problem. The worker received an interview with an occupational health and safety advisor, and a report was sent to the worker as well as her trade union representative. Both the worker and her trade union representative were “very pleased to receive such advice about health and safety legislation”.

4.10.3 Testimonial #3 – The Administrator
A female administrator in a large organisation was referred to the occupational health advisory service by her general practitioner due to musculoskeletal problems of the upper extremities. The client also mentioned that she endured a heavy workload. The worker received an interview with an occupational health and safety advisor, and a report was sent to the worker, and a copy was shown to her manager. As a result of the report and the recommendations within, the worker received a risk assessment and ergonomic assessment of her workstation, and this was then extended to include thirty other colleagues’ workstations.

4.10.4 Testimonial #4 – The Switchboard Operator
A female switchboard operator in a large organisation was referred to the occupational health advisory service by her general practitioner due to a number of chest and throat infections. The worker received an interview with an occupational health and safety advisor, and a report was sent to the worker, and a copy was shown to her manager. The advice given to the worker helped the client approach her manager for further help and make requests for risk assessments of her equipment and job to be made.
5 DISCUSSION

5.1 THE DILEMMA OF WORK-RELATED ILL HEALTH

Published data indicates that about 7% of consultations in general practice are due to work-related conditions, with 48% of work-related disease being musculoskeletal in nature, 10% respiratory, and 10% psychological. Other studies suggest that the prevalence of work-related conditions could be double the HSE’s estimate. As the OHAC report and other studies have indicated, work-related disease is still common. One major problem in addressing this issue is that symptomatic workers may not readily make the association between their work and their ill-health. Occupational medicine understands that the diagnosis of occupational disease goes beyond treating patients, and should involve dealing with the workplace cause(s) and any other people in the same workplace who have been or will be affected in the same way. Reducing any risks in the workplace requires knowledge of preventive occupational medicine and safety. As Harrington noted, the teaching of occupational medicine in medical schools has traditionally occupied a relatively low priority, and as yet there is no established NHS network of specialists to whom colleagues may refer patients with suspected occupational diseases.

Seaton and others recommended that fledgling NHS occupational health services would need to provide outpatient clinic services for local doctors to refer patients to, and perhaps integrate occupational medicine into the medical school curriculum. Such future provision, however, may also be limited in effect if there is not an accompanying change in the attitudes of some doctors towards applied and practical occupational medicine. Some doctors view occupational health departments as being irrelevant to them, and having a relationship with management that may make their judgement biased at best, and even untrustworthy in the least. There may also be issues of the perceived low status of occupational physicians among other clinicians. Such perceptions may arise from a basic lack of understanding about the practice of occupational medicine and occupational health and safety and also about how modern NHS occupational health departments work.

5.2 BACKGROUND OF THE PARTICIPANTS

This evaluation tried to establish if the application of occupational health and safety advice in general practice settings could have tangible benefits to patients and workers. If so, could they provide a potential way of dealing with the shortfall of occupational health provision in the UK. Using a randomised control trial design in a variety of surgeries, the recruitment of patients in the general practice setting resulted in an initial uptake of 47% of all people attending their GP surgery who were asked to participate in the evaluation. This resulted in 23% of those originally approached in waiting rooms actually completing the study in full. The number of people recruited in the allocated time-frame (as proposed by the original research protocol) was less than anticipated, although this is almost certainly due to the logistical issue that only two occupational health advisory services participated in the study.

The baseline data of this evaluation revealed some useful details about working populations who present to general practice, for whatever reason, whether or not related to work. Of the providers of baseline data, 75% were working in full-time jobs. Twenty-six percent were currently off from work due to ill-health at the time of recruitment. Providers of data for this evaluation came from a wide variety of occupations, with the most frequently occurring industries being Service / Consultancy (25%), Administration / Clerical (20%), Trades / Manufacture (19%), Healthcare / Social care (13%). Followed by Sales / Retail, Education, and Customer services. Ethnic groups were not overly represented in the data, with white
participants making 83% of the overall sample, although this may be a reflection of many complex processes observed in ethnic group or minority group participation in community-based research\textsuperscript{22}, rather than the recruitment procedure, or the practices and surgeries involved. However, the only demographic difference between participants from the SOHAS and Healthworks services was in ethnicity – with the SOHAS dataset comprised of 97% of white participants, and Healthworks comprised of 51%. In attempting to secure more participation from difficult to access populations, irrespective of ethnicity or occupational type, changes may need to be made by researchers to the attitudes and the methodologies they may use\textsuperscript{23}. The total drop-out rate of all those who had agreed to participate when asked to in the surgeries, was 42%, and such drop-out problems are by no means unique to this study and are widespread in practice-based and community research, regardless of the data collection methods used\textsuperscript{24}.

Differences between those who participated in the study and those who chose not to were few in number, but those differences that were shown to exist between the groups may be crucial in any meaningful interpretation of the results. Participants and non-participants did not differ in terms of sex, age, educational experience, and length of any sickness absence currently taken at the time of recruitment. However, there were significant differences in that more participants worked full-time than non-participants, and that more participants were sick from work than non-participants. Those who participated also reported significantly more symptoms at baseline than non-participants, and exposure to all types of workplace hazard (psychosocial, organisational, physical or environmental) than non-participants. This implies that those participating in study were motivated to do so by concerns about their job, as might be expected. This may raise questions about a potential bias or self-motivated interest of those people who participated in the study. Although such bias certainly does not invalidate the findings of the evaluation, as the intention was to offer advice to those who wanted it – regardless of need or motivation. It should be reiterated that on the whole, those who did participate in this study were seemingly worse off in terms of workplace hazards, sickness absence and general symptomology than those who did not. This may suggest that those who participated did so because of their occupational needs or health-concerns. It should be remembered that approximately 34% of those who participated to completion were off sick from work at the time of recruitment.

It must be reiterated that the differential drop-out that was anticipated (where more people from the delayed advice group were expected to withdraw from the study due to reduced / delayed involvement from the advisors) did not seem to occur. Seventy-seven participants, (26 of whom had been referred by their GPs presumably because of an urgent clinical necessity), completed their immediate advice group participation in full. The referred participants were demonstrated not to be more symptomatic than participants recruited in the surgeries, and therefore no more needy of help that participants recruited in the standard way. The number of participants who completed the delayed advice “treatment” was 62. The randomised controlled trial nature of this evaluation did not result in the same numbers of participants in the immediate and delayed advice groups, but because of GPs referring patients for immediate advice into the study, it was not expected to be so. However, the difference between the number of people completing the IAG and DAG treatments was relatively small.

Although the absolute number of participants completing the study was not as large as ideal evaluation conditions would dictate, it was promising and encouraging that there was so much homogeneity between the two advice groups at baseline, possibly due to the randomised allocation process and consistency of the project workers in recruiting in the waiting rooms. This is presumably why the power of study calculation, performed upon the collected data showed the sample data to have more power than was expected of it – even though the sample size was smaller than originally desired. The homogeneity of participants allocated into both advice groups was quite high, and this may have allowed any genuine and significant
differences at follow-up, (possibly resulting from the advice), to show as being significant in the data. The drop-out rate for the IAG was higher than the DAG participants (46% compared with 36%) and although it was anticipated that the DAG would have a higher drop-out rate, (due to participants being “ignored” for 4-6 months and time-lag) a difference of only 10% between the groups is reassuring for planning future evaluation work.

5.3 ISSUES OF OCCUPATIONAL HEALTH CONCERN

Seventy-four percent of the sample had received some form of Health and Safety training in their current job, while 26% had not. Importantly, almost one quarter of the sample did not know if they had access to a company health and safety manager in their workplace, while 12% and 13% did not know if they had access to a company doctor or nurse respectively. This figure may be more optimistic than other studies have suggested – claiming that 85% of patients asked in primary care reported they did not have access to an occupational health service. This may of course reflect changes in the level of occupational health provision since such research was conducted in 1994, but that one quarter of the sample in this evaluation were unaware of their access to workplace occupational health would be regarded by some as still being unacceptably high.

The symptoms reported by workers at baseline were varied, but of the most frequently reported symptoms, there was a high prevalence of what would be classified as non-specific symptoms, including headache, back pain, fatigue, anxiety, sleeping problems, and cough. The high prevalence of non-specific symptoms is not unusual in itself, as studies show them to be commonly reported in the general community. However these symptoms commonly occur in the general community as a result of lifestyle factors, illness such as cold and allergy, medical treatment, in addition to environmental and occupational exposures. Of key importance in this evaluation is that the participants were deliberately not asked about any symptomology they believed they had as a result of their work, in order to minimise any reporting bias this may have caused. Instead, participants were merely asked if they had experienced any of the symptoms (listed in the questionnaire) and to this extent, the work-relatedness of such symptom reports in this evaluation cannot be assumed.

Workplace hazards reported by the 510 individuals at baseline were varied, and although no single domain of workplace hazard (e.g. psychosocial, organisational, environmental or physical) appeared to be dominant, it seemed apparent that specific physical hazards were less frequently reported. This may be the result of good elimination or control practices in the workplace, or an artefact that practice patients were from a range of occupations that may not readily include exposures to the traditional physical hazards listed on the baseline questionnaire. However, the validity of the baseline questionnaire which collated information about different workplace hazards had a high level of face validity as it was based upon the checklists used by both of the advisory services taking part in the evaluation.

5.4 THE BENEFITS OF OCCUPATIONAL HEALTH AND SAFETY ADVICE

There were no differences at baseline between members of the immediate advice group and delayed advice group on any of the measured characteristics of sex, age, education, employment, sickness absence, exposure to workplace hazards, or the number of symptoms reported. To this extent the participants allocated into either the immediate or delayed advice groups can be seen as highly homogenous and extremely comparable. This high level of comparability suggests that the sequential alternating approach to allocating participants to either delayed or immediate advice groups worked, in that no major differences were observed between the groups at baseline. This aspect of the study allows for more reliable comparisons of follow-up data between the advised and un-advised participants as a whole.
Participants allocated to the immediate advice group displayed significant reductions in the overall number of hazards they reported at follow-up, except for psychosocial hazards. They also reported significant reductions in most symptoms, as well as the total number of symptoms reported (from a mean of 6 symptoms at baseline, to a mean of 1 symptom at follow-up). Although a within-participants comparison of the hazard and symptom reports allows for a before-after comparison that is affected as little as possible by inter-participant variability, such observed changes in hazards and symptomology in a longitudinal study such as this cannot always be attributed to the advice interviews with absolute certainty. This evaluation can merely report that significant associations were found between those participants who had advice interviews, and subsequent reductions in (self-reported) overall hazard exposure and improvements in symptom reporting between 4-6 months after the interviews. The wide range of potential immediate benefits to workers were indicated in the qualitative reports of the types of changes observed in the workplaces (section 4.9.5); these including equipment, ergonomic, staffing, policy, and environmental changes among others.

Other additional tangible benefits to health and safety were noticed when immediate and delayed advice participants were compared: More immediate advice participants than delayed advice participants reported routine and specific tasks were performed noticeably differently than before; immediate advice participants reported getting more help with daily tasks than delayed advice participants; and more immediate advice participants reported at follow-up that they had become interested in health and safety issues than the delayed advice participants. Interestingly, those participants who received advice interviews also reported significantly more increases in general workload, and increases in the task-load of day-to-day tasks, than the control participants. This could signify that advised participants perhaps benefited from their interviews in a way that enabled them to increase or cope with increases in their workload in a positive way.

Although specific factors associated with successful return to work following absence were not more prevalent in the immediate advice group, the sum number of such factors reported by IAG participants was higher than the DAG group. Further investigation of such factors, in a larger sample of returned-to-work participants would allow more to be made of this finding. It would be sufficient however, to state that occupational health advice given to those participants who had been off work sick was associated with a greater number of behaviours or actions synonymous with successful return to work, than those off work who received no advice.

However there were no differences to be observed between the groups’ workplace hazards and symptom reports, except that advised participants reported significantly more physical hazards in their workplaces than the un-advised participants. This could be interpreted in two ways; firstly, that the advice interviews provided no benefit in terms of general hazard reduction in the workplace, above those who had no advice. The finding could support that there were no significant differences in the number of advised and un-advised participants who noticed “changes in health and safety in the previous 4-6 months” in their workplaces. Secondly, and perhaps more feasibly, it could be argued that greater reports of physical hazards in the workplace made by the advised participants at follow-up could be a result of their increased alertness to, or awareness of health and safety issues, following the advice interviews. This explanation seems likely in that only physical hazards were reported more frequently by the advised group – the number of psychosocial, organisational and environmental hazards did not differ between the advised and un-advised groups at follow-up. Differences in the prevalence of these other hazards could also be expected if the former possible explanation of this result were to be true. It seems possible that the greater reports of physical symptoms (alone) at follow-up in the advised group could be a perceptual / alertness issue.
5.5 PARTICIPANTS’ OPINIONS OF THE ADVISORY SERVICE

The advice interviews appeared to be positively received by the participants, with 96% satisfied with the privacy of the advice interview. Interview length was acceptable to 89% of participants, with 93% rating the advice given as useful or very useful, and 97% understanding the advice they were given. Negative comments about the advice suggested that the advice was of limited use for 20% of participants, and that 12% claimed it was of no help at all. Despite some reservations by some of the sample, usually due to the intricate or specific nature of any workplace problem they had, 96% said they would recommend the advice service to colleagues, while 75% did actually share the advice with colleagues.

An overriding theme that was predominant in the qualitative data was that of how participants would be expected to apply the occupational health knowledge they had gained. In the few cases when participants claimed that they had not done anything with the advice they were given, the main reason was usually because they did not feel they had the power or influence to apply such knowledge in their workplaces. This raises the issues of perceived empowerment and power relationships in the workplace. There could be the argument that it may actually be counter-productive to provide occupational health advice to individuals who may not be at liberty to use such knowledge in the workplaces. Whether this is a genuine concern or not certainly suggests a greater need for occupational health advisory services to be able to continue their involvement with patients, once those individuals cross the threshold of their workplaces. This may also increase user-satisfaction with the advisory services, although the qualitative data showed satisfaction to be very high already. Not only would such follow-up work be helpful in assisting those workers who want to make changes but who may not know how to do so, but it could also assist in ensuring that workers comply with the advice they may have received. Qualitative data also revealed that some participants may have the added complexity of finding it hard to recall the advice they were given, and any such follow-up service would certainly prove useful in assisting any workers who had difficulty in remembering or implementing such advice. Future evaluations of the benefits of occupational health advice should certainly take into account issues of sustainability of any improvements brought about by the advice, along with worker compliance with the advice they are given. Patient compliance is an area studied in great detail in general medicine – and perhaps there is a genuine need for studies of patient/compliance in this field too.

The positive feedback received from the majority of participants who experienced the advice interviews suggests that such workers could be a good source of information dissemination to other workers, both of the occupational health knowledge and in raising awareness of the help that can be provided by the services. Qualitative data suggested that many participants were perfectly capable and willing to share the information they received, both with other workers, union representatives and even their managers. Some useful suggestions were also offered for how the services could be improved, and the majority of these suggestions concerned increasing the image and presence of the services.

5.6 FUTURE APPROACHES

Although increasing rates of employment are important for both Sheffield and the borough of Newham, it is imperative that the jobs generated do not damage health – it should not be ‘jobs at any cost’. Attention needs to be paid to the working conditions in local businesses, particularly the smaller ones where health and safety compliance is often limited, with a lack of access to sources of information and advice for employers and employees in small companies. Employees also need to be aware of health and safety issues to raise their awareness of how work can affect their health. Some more vulnerable groups may need specific training and/or support whilst at work, for example those with mental health
problems (addressed by the local HAZ Mental Health Programme), learning disabilities, or illness-susceptibility.

The problem of reaching out to vulnerable groups has been addressed by a number of local advisory services including those studied here. The different options available have been demonstrated by the creative methods of funding the services, such as working as part of the regeneration board programmes or as charities. With the aim of raising awareness of work-related health problems and to reduce accidents and ill-health among working people, occupational health and safety advisory services need to work widely and use diverse methods of reaching those in need, such as providing training to a variety of target audiences, including children in local schools, to raise their awareness of health and safety at work. This has been recognised by the Health and Safety Commission’s strategy for workplace health and safety in Great Britain to 2010 and beyond28. Conducting interviews of patients in primary care, and providing advice to help those individuals whose health has or could be affected by their work is one method of addressing the wider audience who would certainly benefit from such input. The outreach work done by the advisory services places them in direct contact with a wide range of people in the local community and can generate a detailed understanding of work-related health issues.

At present such occupational health and safety advisory services are mostly funded by the local family health services and district health authorities. Including the services involved in this evaluation, there are two in London, four in Yorkshire, one in Liverpool, and one in Scotland. The advisory services can also provide a good source of interactive feedback for advisors and practitioners, with shared case studies, information, seminars, and practical support such as benefit issues. In view of the promising evaluations of these projects, making advice on occupational health standard practice in primary care settings should be given further serious consideration. Given the current emphasis on diagnosis and treatment in the community and primary care settings, occupational health services based in primary care should be supported and developed11, 20. As the evaluation of the “Good Health is Good Business” campaign demonstrated, organisations that are made aware of occupational health do display more positive attitudes to health and safety, and adopt more comprehensive use of risk assessment and management. This awareness raising can be done equally effectively by “educating” employers about occupational health as it can be done by business and economic persuasion29 and therein may lie another additional future role for occupational health advisory services in primary care.

Primary care-based occupational health support is also essential if the government’s goals for reducing sickness absence, and improving job retention and rehabilitation are to be achieved. Early data from The Department for Work and Pensions Job Retention and Rehabilitation Pilots have shown how primary care is a particularly useful setting for finding individuals in need of job retention help. HSE publications also suggest that general practitioners and existing primary health care professionals are unlikely to be able to contribute the range of skills, knowledge and resources needed to provide this support with any degree of uniformity11. There-in lies a recognition of the need to introduce a new range of skills into primary health care to provide good quality occupational health support.
5.7 LESSONS LEARNED FOR FUTURE EVALUATION WORK

The evaluation process needs to be as objective as possible, with the onus on advisory services being able to focus solely on the work they do while being evaluated, with as little effort as possible being diverted to having to comply with the requirements of any researchers. This should ensure a more reliable picture of the actual work done by such advice services. In terms of practical methodology, there were a number of difficulties faced by this evaluation, which may be important to consider for future evaluation work. A future evaluation may wish to consider the following:

- Data collection to be conducted by specially trained independent researchers rather than employees of the advisory services.

- A reduction in the consultative process between advisory services and the research team – based upon their specialist local knowledge, services are probably best equipped to dictate what the evaluation criteria should be.

- Evaluate one advisory service at a time, or implement clear communication procedures between services, to reduce any potential conflicts concerning the evaluation procedure, and to counter difficulties caused by different ways of working between services.

- Supplement any questionnaire data collection with workplace / home visits at baseline and follow-up, using both quantitative and qualitative methods where appropriate.

- Use different researchers to gather baseline data and follow-up data in order to minimize bias or practice effects.

- If using a between groups design (e.g. IAG versus DAG), in order to simplify the randomisation / participant allocation process, do not randomise participants individually, but randomise at a practice level, recruiting patients from either a “control” or “intervention” practice.

- Extend the follow-up periods beyond 6 and 12 months, as originally planned, in order to investigate longer-term effects and sustainability.

- Use a within-participants design, eliminating the need for any control/comparison groups, and measure the research variables before and after any such advice intervention, in order to reduce any confounding variables associated with between group studies.

- Select a primary outcome measure, and decide what change(s) in that variable would constitute a meaningful change. The difficulty in making such a decision may be reduced by evaluating one service at a time, and using a more homogenous working population (e.g. one industry type or sector) where such outcomes may be more uniformly meaningful and easier to measure.

- With almost one-third of participants claiming the advice did not help reduce symptoms, and one-quarter claiming it did not help them cope with their symptoms, the use of workers’ perceptions of symptom-reduction (as an outcome measure) may be an unrealistic variable to focus on in future evaluations.

- If possible, measure and record future participants’ reasons for attending their GP surgery.

- Compliance with advice, and the ability to implement such advice should be addressed, in order to establish what advisory services can do to sustain the benefits they provide.
6 CONCLUSIONS

- From participants’ reports, there is a definite need for occupational health advisory services such as these. However, many workers may not be aware either that they need it or that they could benefit from it.

- The majority of participants approved of the advice they were given, and also the method of how it was given. Only a small number of participants did not know how to implement it in their workplaces. This would suggest there is a definite need for follow-through work and that the advising of workers should not end without follow-through.

- There is a place for occupational health and safety advice at the primary care level but other additional services need to be considered. There needs to be more support for people and engagement of other agents in the workplace such as liaison with workplace safety advisors. More formal cooperation with workers’ trade union representatives or safety representatives would be a natural progression of this.

- When occupational health support is provided in a primary care setting there is sufficient take-up to justify provision. Approximately 25% of working adults approached in GP surgeries who were offered occupational health advice, took up the offer. This figure may be artificially lower than what may really occur, as participation in an evaluation such as this (requiring consent form completion) may deter people from accepting the offer of just advice alone.

- Up to six months after receiving advice, participants reported observable changes in workplaces. Such changes included more workplace visits and demands made by health and safety inspectors, new and increased number of safety committees, and actual changes in how health and safety was organised in the workplace.

- In the months after receiving advice, participants reported a significantly reduced number of total workplace hazards. Organisational, physical, and environmental hazards were reduced, although psychosocial hazards did not seem to be reduced by the time of follow-up. However, every single individual hazard was either significantly less prevalent or no more prevalent at follow-up. No increases in any of the hazards were reported.

- After receiving advice, workers seemed more aware of physical hazards in the workplace. In comparison between the advised and un-advised participants, the advised participants reported significantly more physical hazards at follow-up. This could be indicative of increased health and safety awareness among the advised participants, resulting in more physical hazards being reported in their workplaces.

- Increased reporting did not occur for the less obvious or visible organisational, psychosocial and environmental hazards in the workplace. This may merit further investigation.

- The number of workplace hazards reported after advice was lower for all hazard types, except for the psychosocial domain. Psychosocial hazards may be harder to recognise / less tangible and therefore harder for individual participants to control than other types of hazard.
Use of the advice may facilitate workers to actively and deliberately cope with greater general and day-to-day workloads. Participants who received the advice reported significantly more increases in general workload, and increases in the task-load of day-to-day tasks at follow-up, than the un-advised participants.

Reductions in symptom reporting can be associated with receiving the advice. The mean number of total symptoms reported by participants was significantly less at follow-up than at baseline. There were statistically significant reductions in 25 (of the 31) different symptoms by follow-up. No increases in any of the symptoms were reported.

Symptom reporting is a complex aspect of patient behaviour and it is understood that many other reasons may explain the observed reduction in symptom reporting recorded in this study. This evaluation can merely report an association between receiving advice and reduced symptom reporting over 4-6 months.

However, there was no difference in the total number of symptoms reported by advised participants at follow-up compared with the un-advised participants.

The overall number of factors associated or signifying successful return to work after absence was significantly higher for the advised participants. However, individual return to work factors, such as phased return, modifying jobs to suit the employee, or sideward moves within organisations were not significantly different between the advice groups.

Three quarters of participants shared the advice they received with their colleagues. The processes involved in worker-to-worker dissemination may be a useful future area to study and understand in order to increase the impact factor of the advisory services.

The methods used by individual advisors may be diverse and reflective of their professional backgrounds. Their practices may reflect their experiences or priorities, and future research could ascertain which methods of advice-delivery are the most effective.

Most participants claimed they had been unaware of the existence of such services, and suggested that increasing public awareness would be worthwhile. However, there would be important implications for both service demand and subsequent provision to be considered before attempting to increase public awareness.

Future evaluation studies should address why patients / participants would be visiting their GPs. This evaluation was not solely concerned with those individuals presenting to their GPs with work-related health problems, but included all patients visiting their GPs who may or may not have had work-related health concerns.

Ethnic monitoring of who uses the services and why may, be important to make sure everybody gets equal access to advisory services. If people from ethnic groups are not taking part in receiving such advice then services may need to address this, and the future use of translation services and ethnic group-targeting in GP surgeries may be useful.

Occupational health advice was associated with a reduction in the number of visits made to see GPs, for approximately one third of the sample.
7 RECOMMENDATIONS

There are a number of recommendations that can be drawn from this evaluation, both in terms of practical advice for the provision of occupational health advice, but also in wider terms, in accordance with recommendation 21 from the HSE OHAC report and the HSC “Strategy for Workplace Health and Safety in Great Britain to 2010 and beyond”.

7.1 RECOMMENDATIONS FOR PROPOSED AND EXISTING ADVISORY SERVICES

The evaluation can suggest a number of pointers concerning the dynamics of the advice interviews, as well as participants’ opinions of the advice they received, and specific information regarding hazard exposures and symptom reports.

- Positive verbal recommendations from clients may be the best ally in the development of such services, and an “if you liked the service, tell someone” approach should be encouraged – 96% of those receiving advice claimed they would recommend the services to other workers, and share advice when relevant.

- There may be scope for cultivating new methods of technology and information delivery to support use of recently acquired knowledge in the workplace and also for advertising / increasing public knowledge of the service.

- The majority of participants had been unaware of such a service, and many participants suggested further publicity of the projects and the services offered, such as advertising or poster campaigns would increase public knowledge of the services.

- Provision of this service may be able to reduce patient flow to GPs for some workers, but not for others, and future evaluation work should investigate this possible benefit.

- More practical help in implementing any advice into workplaces would be appreciated by participants, such as follow-up contact calls, reminder sheets, or “toolbox talks”.

- Whenever possible, arrange for advice to be given in a private area within the waiting room.

- Advice sessions need not be time-limited, as the majority of participants were happy with the variety of durations of the interviews. This would vary depending upon individual workers, and information would need to be pitched at the correct level for the individual worker.

- Workers would welcome more clarity of the occupational health and safety provision that is available to them on an organisational level.
7.2 THE WAY FORWARD

This research has shown that most workers found that the provision of advice concerning workplace hazards to individuals in a primary health care setting could result in improvements in their working environment and health. However, the effect of the advice could be limited due to participants sometimes lacking initial awareness of their health and safety problem(s), and participants not knowing where to get appropriate advice or the support to implement that advice. The report supports the strategic direction for providing occupational health support but it did not look at the most cost-effective methods of doing that. Further work on this needs to be done. The Health and Safety Commission’s recently published strategy recognises the rising challenge of occupational health, which demands a strategic and partnership-based approach. The Health and Safety Commission’s strategy is to develop partnerships to increase the provision of occupational health support and raise awareness and stimulate demand for these services. It will be important to test out different delivery models and look closely at the sustainability of funding occupational health support provision in the long term.
8 REFERENCES


17. London East Borough Profiles: Key economic and social statistics for the London East TEC and Learning and Skill Council areas April 2000. LETEC Research


You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Thank you for reading this.

“What is the purpose of the study?”

- Advisors in workplace health and safety are available to talk to you in your GP surgery.
- They can offer help and advice in relation to any concerns you may have about health and safety in your work or workplace.
- The service is free and completely confidential.
- We want to find out how useful this advice is to patients who are visiting their surgery.
- To do this we need the help of patients like yourself who might be interested in talking to an advisor.
- You do not need to be ill.
- You do not need to be working in a hazardous workplace or job to take part.
- We need to collect information from a wide range of people with different jobs.

“Why have I been chosen?”

A number of other GP surgeries around the country are also taking part. Anyone who visits the surgery will be invited to take part if they:

- Are aged between 16 and 65
- Are currently working
- Are interested in talking to a workplace health and safety advisor
“Do I have to take part?”
It is up to you to decide whether or not to take part.

- If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form.
- If you decide to take part you are still free to withdraw at any time and without giving a reason.
- If you do decide to withdraw this will not affect your access to an occupational health and safety advisor, nor will it affect in any way the treatment you receive at your GP’s surgery.

“What will I have to do if I take part?”
- You will be asked to fill in a questionnaire which collects general information about you, your work and any concerns you may have about workplace health and safety. This information will be kept strictly confidential.
- You will then be randomly allocated to either Group I or Group II

If you are allocated to Group I
- Six months later you will be contacted by the advisor (probably by telephone if this is more convenient) and offered an appointment with an advisor to talk about health and safety in your workplace, and any changes which may or may not have happened in relation to health and safety in your workplace.
- A further six months later you will be contacted once more to talk about any further changes which may or may not have occurred.

If you are allocated to Group II
- You will be offered an appointment with an advisor as soon as possible to talk about health and safety in your workplace.
- Six months after your interview you will be contacted by the advisor (probably by telephone if this is more convenient) to talk about any changes that may or may not have happened in relation to health and safety in your work.
- A further six months after that you will be contacted by the advisor again (probably by telephone if this is more convenient) to follow up how things have been at your workplace.

The reason we want to interview one group later than the other is so that we can compare peoples’ experiences with and without the benefit of the interview. For example, for some people there may be improvements in health and safety at work even without an interview with an advisor.

A small number of people from both Group I and Group II will be contacted (again by telephone) by the research staff to check the information recorded and some may invited to take part in a discussion group to talk about their experience of the advisory service. This discussion group would be tape-recorded but no-one speaking on the tape will be identified either verbally or on tape labels.
“What are the benefits of taking part?”
There are no special benefits to you as an individual in taking part in the study since the Occupational Health Advisory Service is already available to all patients in this practice. However it is important for the future that we know whether the service is helpful to patients, if it needs improving in any way and how it can be improved.

“Will my taking part in this study be kept confidential?”
All information which is collected about you during the course of the research will be kept strictly confidential. Any information which leaves the occupational health advisors will have your name and address removed so that you cannot be recognised from it. Only the occupational health advisors will know your contact details, in order to make future appointments with you.

“What will happen to the results of the research study?”
The researchers will publish a report which will be available on the Internet. The report will only refer to group information. No individuals will be identified. The researchers will also produce a shorter summary version of the results which you will be able to obtain free from your GP surgery or your occupational health advisor, on the number below:

Newham: 0208 557 6161  Sheffield: 0114 275 5760

“Who is organising and funding the research?”
This research is being organised by the Institute of Occupational Health based at the University of Birmingham. It is funded by the Health and Safety Executive who cover the expenses of carrying out the research. This includes a payment to the Occupational Health Advisory Service at your GP surgery to cover their costs in taking part in the evaluation.

“Who has reviewed the study?”
This study has been reviewed by scientists at the Health and Safety Executive and by the ethics committees of your region and of the other regions taking part.

“What if I have more questions or do not understand something?”
If, before deciding whether to help us with this study, you would like further information or if at any stage you have more questions that you would like answered please feel free to telephone:

…………………………………………………………………………………………………………………………………………………….. Occupational Health Advisor

On / / between ________________ and ________________

Thank you for your interest. If you decide to take part you will be given a copy of this information sheet and a signed consent form to keep.
Evaluation of Occupational Health Advisory Services

CONSENT FORM – PATIENT COPY

Institute of Occupational Health, University of Birmingham

Centre: Participant Number: __________

Names of Researchers:
Dr Craig Jackson and Dr Anne Spurgeon
Institute of Occupational Health
University of Birmingham

4.8 I confirm that I have read and understood the information sheet for the above study and have had the opportunity to ask questions.

4.9 I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason and without my medical care, my access to occupational health advice or my legal rights being affected.

4.10 I understand that any information I give either in written form or in an interview or in a tape-recorded discussion group will remain confidential to the researchers and will not be given to any other person without my consent.

4.11 I agree to take part in the above study.

/        /
Name of Patient Date Signature

/        /
Name of person taking consent Date Signature

Please initial each box

So that the Occupational Health Advisor can contact you for a future appointment, please place your contact details below (your details will not be given to anyone else).

<table>
<thead>
<tr>
<th>Contact Phone</th>
<th>Contact Address</th>
</tr>
</thead>
</table>

1 copy for patient; 1 copy for researcher; 1 copy to be kept with GP notes
APPENDIX 3 STATEMENT OF RECRUITMENT WORKERS


Overall I got a very positive response from people I approached in the waiting rooms and from the staff working at the surgeries. The questionnaire format worked well. People were always willing to talk about themselves and it passed some time when waiting for an appointment.

Many people I approached were willing to take part in the evaluation. When a run of people declined it was best to wait for a new turnover of patients before trying to approach new people.

Whilst it is true that people were sometimes called away this did not happen too frequently and quite often people who I asked to take part were willing to come back and complete the questionnaires after their appointment.

The consent form process was initially time consuming, and it would have been better if patients only had to sign one form rather than three. This was reduced down to two so they took one home and the GP notes copy was photocopied and then filed by the practice staff.

There were a large number of people who did not want advice after completing the screening questionnaire, sometimes in spite of the fact that the answers that they had given suggested that there were occupational problems that needed to be addressed.

Waiting rooms were often really crowded, and communication could be hard.

Some people in the waiting rooms were just not interested, and others did not take part as they really sick and in discomfort.

When language is a communication issue, translators could be used.

Ethnic monitoring may be important - to make sure everyone gets equal access to our services, if people from ethnic groups or minority groups are not taking part then we as projects need to address this. Also experience has taught us and research supports this that people from ethnic groups tend to work in retail, care etc and are employed by small employers. And as such do not have access to trade unions, occupational health and safety advice etc, so if anything their need is greater for our services. This is one of the fundamental reasons as to why we exist.

Occasionally we had difficulty with people with English as an Additional Language but not enough that they did not take part.

Many people when approached initially do not answer a direct question i.e. Are you working at the moment? As they are nervous about our role (connections with local authority, benefits office, etc) and our experience is that some people with English as an Additional Language will state as we approach, ‘No I don’t speak English’ as an extra defence mechanism. We have found that it is best to carry on regardless and sit with the patient and explain fully what it is we are doing and often they then take part and English is not a difficulty. If we didn’t do this we wouldn’t have people to offer a service to.

With this HSE questionnaire most of the questions required people to answer yes / no to statements so we felt quite straight forward for everyone to be included in the study. Where
there was more detailed questions, such as “Do you know if your employer has a Health and Safety Committee or Health and Safety officer?”, a large number of all people taking part in the study needed more explanation about what one was, or what one would do.

If people did have difficulty with speaking English they would ask us to speak to their relatives who were accompanying them.

Maintaining confidentiality in waiting rooms can be difficult at times, but it can be amazing what patients will tell you while in the waiting room.

2. **Advice interviews for the delayed advice group (DAG)**

“Did Not Attends” occurred when participants had to make an appointment to come back at a later time. People frequently forgot to come to their appointment but some participants made replacement appointments, and did turn up at a later date.

Sometimes the time between recruitment and completion of the screening questionnaire and getting an appointment was extended because the occupational health and safety advisors could only attend some surgeries every two weeks, and their appointment books may have been full with requests to see patients referred by GPs. (SOHAS only)


The Follow-Up questionnaire took 15 minutes to administer over the telephone, depending on how much detail the participant wished to give.

The response to the follow-up phase had been generally positive with most participants being happy to cooperate and complete the questionnaire over the telephone. Only one respondent hung up the telephone prematurely.

It was best to contact participants in the evenings when they were not at work, as most of their consent form contact numbers had been home or mobile numbers. This allowed follow-up information to be collected when the participant was not in his/her workplace.

Most of those who agreed to participate but dropped out before follow-up phase were withdrawn from the evaluation because they could not be contacted at the follow-up phase, often due to the participants moving home or having new telephone numbers. Very few individuals who dropped out of the study actually withdrew through an admitted lack of interest.

While the follow-up phase was originally intended to commence 6 months after recruitment of a participant (then reduced to 4 months) it was sometimes longer for some participants.
4. General anecdotal accounts

Most people who were contacted at the Follow-Up phase found the advice they had received to be useful and understood the information they were given.

Most participants recommended the services to other people, citing that they believed it could help others and allow them to know their rights on issues their employers may not have clarified for them.

Most participants felt positive about having an occupational health service in GP surgeries, and most participants seemed more empowered to take action after receiving an advice interview.

The predominant response to the question “how could the service be improved?” was to market the service more effectively. Most participants were unaware of the service until they were recruited / approached to be recruited into the evaluation.

Overall I got the impression that people were happy with the service they received and most were able to use the advice they received in someway or other. Most participants came away with more knowledge about their problem than if they had not had access to the service.
OCCUPATIONAL HEALTH INTERVIEW

SCREENING QUESTIONNAIRE

SHEFFIELD

Please tick

NEWHAM

TO BE COMPLETED LAST:

Does the patient want an urgent OH advice interview? _____

In your opinion, does the patient merit an urgent OH advice interview? _____

___ interviewer SC#1
This questionnaire is intended to measure information about you, your job, and any health effects that you may experience as a result of the work you do.

Your answers are strictly confidential and will not be shown to anyone else.

There are 4 sections, asking questions about:

A. Your details
B. Your place of work
C. The work you do
D. Your well-being at work

Please answer each question as truthfully as you can by placing a circle around each answer that you want to give

e.g.

1. Please describe your details of employment
   a) Full time
   b) Part time
A) ABOUT YOU

1. What is your age?

2. What is your marital status?
   (tick all that apply)
   a) Single
   b) Married
   c) Boyfriend or Girlfriend
   d) Separated
   e) Widowed
   f) Divorced

3. How would you describe your ethnicity?
   (tick all that apply)
   a) Bangladeshi
   b) Black-African
   c) Black-Caribbean
   d) Black-Other
   e) Chinese
   f) Indian
   g) Pakistani
   h) White
   i) Any other group (please describe) ____________________________

4. Did you have any further education after leaving school?
   a) Yes
   b) No
5. Did you get any further qualifications since you left school?

a) Certificates
b) Diplomas
c) Degrees
d) Other (please describe) ____________________________
B) ABOUT YOUR PLACE OF WORK

1. How would you describe your employment situation?
   a) I am an Employee
   b) I am a Contractor
   c) I am Self-Employed
   d) Other (please describe) _______________________________________

2. Do you work Full or Part time?
   a) Full Time
   b) Part Time

3. What is your job title at present?
   ________________________________________________________________

4. What line of work are you currently in?
   ________________________________________________________________

5. How many people are employed at your main place of work?
   a) 1 - 10
   b) 11 – 50
   c) 51 – 250
   d) More than 250

6. Are you currently off sick from work?
   a) Yes
   b) No
7. If you are off sick, how long have you been off for?

8. Do you feel your health has improved while off sick from work?
   a) NO – it’s much worse
   b) NO – it is slightly worse
   c) NO CHANGE AT ALL
   d) YES – it is slightly better
   e) YES – it is much better

9. Have you received any training about Health & Safety while in your current job?
   a) Yes
   b) No

10. Do you have any of the following at your place of work?
    a) Trades Union
        Yes  No  Not sure
    b) Trades Union Safety Rep.
        Yes  No  Not sure
    c) Other Health & Safety Officer
        Yes  No  Not sure
    d) Company Health & Safety Manager
        Yes  No  Not sure
    e) Company doctor
        Yes  No  Not sure
    f) Company nurse
        Yes  No  Not sure
    g) Safety Committee
        Yes  No  Not sure
C) ABOUT THE WORK YOU DO

1. During the last few weeks have you experienced any of the following at your workplace? (please tick all that apply)

<table>
<thead>
<tr>
<th>substances</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1. Asbestos</td>
<td></td>
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<tr>
<td>2. Biohazard material</td>
<td></td>
</tr>
<tr>
<td>3. Dust</td>
<td></td>
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<tr>
<td>4. Fumes / smells</td>
<td></td>
</tr>
<tr>
<td>5. Solvents / Paints / Thinners</td>
<td></td>
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<tr>
<td>6. Toxic chemicals</td>
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<tr>
<td>7. Radioactive material</td>
<td></td>
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<tr>
<td>8. Infections</td>
<td></td>
</tr>
<tr>
<td>9. Oils</td>
<td></td>
</tr>
</tbody>
</table>

| environmental                       |                |
| 1. Air conditioning problems        |                |
| 2. Driving (not commuting to work)  |                |
| 3. Using computer displays          |                |
| 4. Inadequate equipment             |                |
| 5. Lighting problems                |                |
| 6. Lifting & Handling problems      |                |
| 7. Loud noise                       |                |
| 8. Passive smoking                  |                |
| 9. Physical assault                 |                |
| 10. Poor ventilation                |                |
| 11. Temperature problems            |                |
| 12. Vibration                       |                |

| organisation                        |                |
| 1. Bullying                          |                |
| 2. Constant change                   |                |
| 3. Discrimination / unfairness       |                |
| 4. Long working hours                |                |
| 5. Poor management                   |                |
| 6. Poor training                     |                |
| 7. Racial harassment                 |                |
| 8. Pressure to do more               |                |
| 9. Shiftwork                         |                |
| 10. Sexual harassment                |                |
| 11. Too few breaks                   |                |
| 12. Under-staffing                   |                |
| 13. Unfriendliness                   |                |

2. Do you think any of the following occur at your workplace? (please tick all that apply)

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Heavy workload</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Unfair treatment</td>
<td></td>
<td></td>
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<tr>
<td>c) Unreasonable demands</td>
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<td></td>
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<tr>
<td>d) Boring work</td>
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<td></td>
</tr>
<tr>
<td>e) Job Insecurity &amp; uncertainty</td>
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<td></td>
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<tr>
<td>f) Lack of reward</td>
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<tr>
<td>g) Poor support</td>
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<tr>
<td>h) Danger from working alone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Feeling undervalued</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
D) ABOUT YOUR WELL-BEING AT WORK

1. **During the last few weeks have you noticed any of the following conditions in yourself?**  
   *(please tick all that apply)*

<table>
<thead>
<tr>
<th>Condition</th>
<th>Other Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>Heart trouble</td>
</tr>
<tr>
<td>Back pain</td>
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</tr>
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<tr>
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<td>Sweating</td>
</tr>
<tr>
<td>Headache</td>
<td>Watery / Dry eyes</td>
</tr>
<tr>
<td>Hearing problems</td>
<td></td>
</tr>
</tbody>
</table>

**Which part of your body?**

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<tr>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin problems</td>
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</tr>
<tr>
<td>Weakness</td>
</tr>
<tr>
<td>Repetitive strain</td>
</tr>
</tbody>
</table>
2. During the last few weeks have you noticed any of the following conditions in your colleagues / workmates? (please tick all that apply)

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<th>Condition</th>
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</tr>
<tr>
<td>Weakness</td>
</tr>
<tr>
<td>Repetitive strain</td>
</tr>
</tbody>
</table>

THANK YOU FOR TAKING PART IN THIS RESEARCH
FOLLOW-UP (TELEPHONE) OCCUPATIONAL HEALTH QUESTIONNAIRE

___ interviewer  TE#1

OCCUPATIONAL HEALTH INTERVIEW

FOLLOW-UP QUESTIONNAIRE

SHEFFIELD

NEWHAM

Please tick

Sex:  M   or   F

Age:  ______

Date of Call  __ / __ / 03
“This questionnaire is intended to measure how useful the Occupational Health Advice Interviews were for you.”

“We also want to know how such advice may have been used at your place of work.”

“There are 5 sections, asking questions about:”
E. The interview you had
F. The advice you were given
G. What you may have done with the advice
H. Any changes in your workplace
I. Your well-being at work

Please answer each question as truthfully as you can

There are no right or wrong answers

Your opinions are what counts
A) ABOUT THE INTERVIEW SESSION

++ INTERVIEWER TO COMPLETE ++

1. Where did the advice / interview take place?
   a) Telephone
   b) Waiting room
   c) Private room
   d) Letter / Postal
   e) Other (please specify) __________________________

2. Were you happy with the privacy in any interview you had?
   a) Yes
   b) No

3. Where would you have preferred the interview to take place?
   a) Telephone
   b) Waiting room
   c) Private room
   d) At your place of work
   e) Other (please specify) __________________________

3.b Would you object to having the advice given to you in the doctor’s waiting room?
   a) Yes
   b) No

4. How long do you feel your interview lasted?
   a) Too long
   b) Just right
   c) Too short
B) ABOUT THE ADVICE

1. In your own words briefly say how useful the advice was to you?

++ INTERVIEWER TRANSCRIBE ++

a) Very useful
b) Useful
c) Not useful
d) Not at all useful

2. Can you remember what actual advice was given to you?
(please tick all that apply)

<table>
<thead>
<tr>
<th>Information pack / leaflets</th>
<th>Sent to employer’s OH service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report sent to employer</td>
<td>Employment rights advice</td>
</tr>
<tr>
<td>Equipment solutions</td>
<td>Writing official letters</td>
</tr>
<tr>
<td>Verbal advice</td>
<td>Move jobs</td>
</tr>
<tr>
<td>Benefit advice</td>
<td>Risk assessment</td>
</tr>
<tr>
<td>Referral report sent to patient</td>
<td>Referral report sent to doctor</td>
</tr>
<tr>
<td>Shop steward contacted</td>
<td>Can’t remember</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
</tr>
</tbody>
</table>

3. Did you understand the information that was given to you?

a) All of it
b) Most of it
c) Some of it
d) Very little of it

4. Were you expecting more or less advice than you were given?

a) More
b) It was just right
c) Less

++ INTERVIEWER ++

If the patient had no specific concerns / problems, skip Q5.
5. Did the advice help with the main problem / concern you had?
   a) Yes
   b) No

6. Did the advice / information / assistance that you were given help with the following?
   (please tick all that apply)

<table>
<thead>
<tr>
<th>Did the advice help you with...</th>
<th>Helped very much</th>
<th>Helped a little bit</th>
<th>No help at all</th>
<th>N / A</th>
</tr>
</thead>
<tbody>
<tr>
<td>....Increasing your knowledge about health in your workplace</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>....Make you more confident in dealing with your problem / concern</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>....Coping with any symptoms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>....Stopping any symptoms getting worse</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>....Needing fewer visits to see your doctor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
C) ABOUT WHAT YOU DID WITH THE ADVICE

1. After the interview what did you do with the advice?
   ++ INTERVIEWER TRANSCRIBE ++
   ——————————————————————————————————
   ——————————————————————————————————
   ——————————————————————————————————
   ++ Use prompts if needed ++
   e.g. “Kept the advice to myself but did nothing with it”
   “Acted on the advice myself”
   “Shared the advice with colleagues / work-mates only”
   “Talked to a supervisor / manager about the advice”
   “Talked to a health & safety officer about the advice”
   “Talked to a trade union officer / shop steward about the advice”

2. Would you recommend this service to others?
   a) Yes
   b) Not sure  \( Why \ is \ that? \)  ————————————————————
   c) No  ————————————————————

3. If you did not act on the advice, could you give reasons why not?
   (read out each option and circle all that apply)
   a) “It was of no use to your work”
   b) “It was not practical to do so”
   c) “You did not feel the need”
   d) “You were worried it might cause trouble for yourself”
   e) “You were worried it might cause trouble for your workmates”
   f) “You did not know what to do with the advice”
   g) “You did not know who to approach at work with the advice”
   h) “You were off work sick”
4. Did you share the advice?
   a) Yes
   b) No
   If “NO” why?

5. What was the reaction of those who you passed the advice onto?

(i) Colleagues / workmates
   a) Good
   b) Nothing / No reaction
   c) Bad

(ii) Supervisor / manager
   a) Good
   b) Nothing / No reaction
   c) Bad

(iii) Health & Safety representative / officer
   a) Good
   b) Nothing / No reaction
   c) Bad

(iv) Union officer / Safety rep / Shop steward
   a) Good
   b) Nothing / No reaction
   c) Bad

(v) Occupational Health Dept. Doctor / Nurse
   a) Good
   b) Nothing / No reaction
   c) Bad
D) ABOUT CHANGES AT YOUR WORKPLACE

1. Do you feel that any health & safety changes have happened in your workplace in the last 6 months?
   a) Yes
   b) Not sure
   c) No

2. There are many things employers can do when trying to improve the workplace.

Please list any changes that you have noticed in your workplace in the last 6 months.

++ INTERVIEWER TRANSCRIBE ++

<table>
<thead>
<tr>
<th>Improved ventilation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Re-design of work equipment</td>
</tr>
<tr>
<td>Personal Protective Equipment (PPE),</td>
</tr>
<tr>
<td>Workspace assessments for VDU users</td>
</tr>
</tbody>
</table>
3. **What changes have you noticed in your day-to-day tasks at your workplace? Please answer “yes” or “no” to each statement. (read out each option and circle all that apply)**

a) “Some tasks are now done differently from before”

b) “Some tasks are now done for less time than before”

c) “Some tasks are now done faster than before”

d) “Some tasks are now done slower than before”

e) “Some tasks are now done with help from other people”

f) “Some tasks are now done with changed equipment”

g) “Some tasks are now done with new / different equipment”

h) “Your workload has increased”

i) “Your workload has decreased”

j) “You now do tasks that are different from the ones you did before”

k) “You now have a different job to the one you did before”

l) “You now work for a different employer than before”

m) “You have become interested in safety training at work”

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**SPECIFIC DETAILS OF ANY CHANGES**

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4. **What changes have you noticed in the way things are done at your workplace? Please answer “yes” or “no” to each statement.**

(Read out each option and circle all that apply)

a) An increase in the use of “Risk Management” by managers
b) More talk of “Risk Assessment” by managers
c) More or New “Safety Representatives”
d) More or New “Safety Committees”
e) More or New “Safety Officers”
f) Changes in health & safety have been planned
g) Changes in health & safety have been put into place
h) Changes in health & safety have been examined and tested
i) Health & Safety inspectors have been contacted
j) Health & Safety inspectors have made visits to the workplace
k) Health & Safety inspectors visited and have demanded improvements
l) Other Health & Safety experts have made visits to the workplace
m) More warning signs and notices about health & safety
n) More or new “Staff education / Safety talks / Toolbox talks”
o) Staff numbers have increased
p) Staff numbers have decreased

5. **If you have returned to work after being off sick, have any of the following occurred?**

(Read out each option and circle all that apply)

a) Phased / gradual return to your job
b) Job was changed / altered to suit you better
c) Help with travel to work
d) Different job with same employer
e) Different job with different employer
f) Moved out of that work
g) Help with career guidance
E) ABOUT YOUR WELL-BEING AT WORK

1. During the last few weeks have you experienced any other problems or concerns at your workplace?

++ INTERVIEWER TRANSCRIBE ++

++ INTERVIEWER ++

If any problems / concerns were present in the screening questionnaire, ask how these problems / concerns are now

++ Use prompts if needed ++

<table>
<thead>
<tr>
<th>substances</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Asbestos</td>
<td></td>
</tr>
<tr>
<td>2. Biohazard material</td>
<td></td>
</tr>
<tr>
<td>3. Dust</td>
<td></td>
</tr>
<tr>
<td>4. Fumes / smells</td>
<td></td>
</tr>
<tr>
<td>5. Solvents / Paints / Thinners</td>
<td></td>
</tr>
<tr>
<td>6. Toxic chemicals</td>
<td></td>
</tr>
<tr>
<td>7. Radioactive material</td>
<td></td>
</tr>
<tr>
<td>8. Infections</td>
<td></td>
</tr>
<tr>
<td>9. Oils</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>organisation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bullying</td>
<td></td>
</tr>
<tr>
<td>2. Constant change</td>
<td></td>
</tr>
<tr>
<td>3. Discrimination / unfairness</td>
<td></td>
</tr>
<tr>
<td>4. Long working hours</td>
<td></td>
</tr>
<tr>
<td>5. Poor management</td>
<td></td>
</tr>
<tr>
<td>6. Poor training</td>
<td></td>
</tr>
<tr>
<td>7. Racial harassment</td>
<td></td>
</tr>
<tr>
<td>8. Pressure to do more</td>
<td></td>
</tr>
<tr>
<td>9. Shiftwork</td>
<td></td>
</tr>
<tr>
<td>10. Sexual harassment</td>
<td></td>
</tr>
<tr>
<td>11. Too few breaks</td>
<td></td>
</tr>
<tr>
<td>12. Under-staffing</td>
<td></td>
</tr>
<tr>
<td>13. Unfriendliness</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>environmental</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Air conditioning problems</td>
<td></td>
</tr>
<tr>
<td>2. Driving (not commuting to work)</td>
<td></td>
</tr>
<tr>
<td>3. Using computer displays</td>
<td></td>
</tr>
<tr>
<td>4. Inadequate equipment</td>
<td></td>
</tr>
<tr>
<td>5. Lighting problems</td>
<td></td>
</tr>
<tr>
<td>6. Lifting &amp; Handling problems</td>
<td></td>
</tr>
<tr>
<td>7. Loud noise</td>
<td></td>
</tr>
<tr>
<td>8. Passive smoking</td>
<td></td>
</tr>
<tr>
<td>9. Physical assault</td>
<td></td>
</tr>
<tr>
<td>10. Poor ventilation</td>
<td></td>
</tr>
<tr>
<td>11. Temperature problems</td>
<td></td>
</tr>
<tr>
<td>12. Vibration</td>
<td></td>
</tr>
</tbody>
</table>
2. During the last few weeks have you noticed any conditions or symptoms in yourself? (please tick all that apply)

++ INTERVIEWER ++

If any symptoms were present in the screening questionnaire, ask how these symptoms are now

<table>
<thead>
<tr>
<th>Symptom</th>
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Which part of your body?

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</tr>
<tr>
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</tr>
<tr>
<td>Repetitive strain</td>
</tr>
</tbody>
</table>
3. During the last few weeks have you experienced any of the following at your workplace?  
(read out each option and circle all that apply)

a) Heavy workload  
   Yes  No
b) Unfair treatment  
   Yes  No
c) Unreasonable demands  
   Yes  No
d) Boring work  
   Yes  No
e) Job Insecurity & uncertainty  
   Yes  No
f) Lack of rewards  
   Yes  No
g) Poor support from bosses  
   Yes  No
h) Danger from working alone  
   Yes  No
i) Feeling undervalued  
   Yes  No

4. Do you have any suggestions for how the Newham / Sheffield Occupational Health Advice Service at your general practice could be improved?

++ INTERVIEWER TRANSCRIBE ++

__________________________________________________________
__________________________________________________________
__________________________________________________________

4b. Do you think there is a need for a service like this in your surgery

a) Yes
b) No

++ INTERVIEWER INVITATION ++

IF ADVISOR HAS SUGGESTED THIS PATIENT IS WORTH INVOLVING IN FOCUS GROUPS, PLEASE ASK IF PATIENT WOULD BE INTERESTED IN TAKING PART:

PLEASE METNION BASIC DETAILS

October / November
Early evening
12 people in total
Travel reimbursement
Catered
Gift certificate offered

INTERESTED?
APPENDIX 6  ADDITIONAL BASELINE DATA FROM THE
SOHAS SCREENING QUESTIONNAIRES

BASELINE DATA ANALYSIS – SOHAS
The SOHAS team collected baseline data from 351 individuals, not all of whom consented to participate in any “advice stage” of the evaluation. The baseline data from all 351 individuals is important to this evaluation, not least in trying to identify any differences between those who consented to have advice (and participate) and those who did not. Of the 351 asked to participate, 121 agreed to participate, although 29 of those dropped out of the study without the opportunity for follow up data to be collected from them. To this extent, the analysis of baseline data took the following course:

1. Present descriptive data for all 351 providers of baseline data
2. Present descriptive data of the 92 individuals who consented to participate and were followed-up to completion
3. To identify any differences between those 92 who participated to follow up and those who did not participate beyond the baseline data
4. To identify any differences at baseline between the participants who completed the study in the immediate advice group (IAG) and the delayed advice group (DAG), in order to ascertain their comparability.

RECRUITMENT STATISTICS - SOHAS
Three hundred and fifty one individuals agreed to complete baseline questionnaires when approached by the SOHAS research worker (26 of which were referred to the study by their GPs). Figure i shows the recruitment process for the SOHAS dataset.
Waiting room recruitment
In terms of waiting room recruitment, 26 people who participated after being referred to SOHAS by their GPs can be ignored, resulting in a total of 325 general practice patients agreeing to provide baseline data. Of the 325 asked, 210 (65%) did not want further participation, while 94 (29%) did. A further 21 (6%) were called away to see their GPs in the surgery before they could complete their screening questionnaires or decide to take part. Of these 94 volunteers, 28 (8% of the 325 asked) eventually dropped out, leaving 66 who participated to completion from being asked to initially participate in the waiting room. A further 23 participants who completed the study were secured after referral from their GPs to SOHAS resulting in a total of 92 participants who completed the study.

Waiting room and referral recruitment figures
The number of people who provided baseline data and then either withdrew, declined to take part, or who participated to the end of the study is shown in table i. This shows that of the 351 people who were approached to participate (325 asked in waiting rooms, 26 referred by GPs), 121 (34.5%) agreed to take part. Of this group, 92 (76% of those who initially agreed to take part, and 26.2% of the entire number of potential participants) completed their participation in full.

Table i Breakdown of participation in the study (SOHAS)

<table>
<thead>
<tr>
<th>Patient Decision</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Participate</td>
<td>210</td>
<td>60</td>
</tr>
<tr>
<td>Called away to see GP before decision could be given</td>
<td>21</td>
<td>5.9</td>
</tr>
<tr>
<td>Agree to participate but withdrew before follow-up</td>
<td>28</td>
<td>7.9</td>
</tr>
<tr>
<td>Participated and Completed</td>
<td>92</td>
<td>26.2</td>
</tr>
<tr>
<td>Total</td>
<td>351</td>
<td>100</td>
</tr>
</tbody>
</table>

Descriptive analysis of baseline data for 351 primary care patients
Table ii shows the breakdown of the sex of those who provided baseline data.

Table ii Sex of baseline data providers (SOHAS)

<table>
<thead>
<tr>
<th>Sex</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>152</td>
<td>43.3</td>
</tr>
<tr>
<td>Female</td>
<td>199</td>
<td>56.7</td>
</tr>
</tbody>
</table>

The mean age of those who provided baseline data was 38.8 years ± 11.2, minimum 17, maximum 66. The kurtosis of the age value was –0.69, which suggests the age distribution was normally distributed, as shown in figure ii.
SUMMARY OF RECRUITMENT / BASELINE DATA (SOHAS)

Descriptive details of baseline respondents (n=351)

Of the providers of baseline data, 71% were working in full-time jobs.

Seventy-one percent (n=249) had received some form of Health and Safety training in their current job, while 25% had not (n=89), with 4% (n=13) not sure if they had received training or not.

Baseline respondents were asked if they had access to the following services in their workplaces:
- Trades Union;        Yes = 54%, No = 41%, Not sure = 5%
- Safety representative; Yes = 36%, No = 48%, Not sure = 16%
- Health & Safety officer; Yes = 64%, No = 23%, Not sure = 13%
- Company Health & Safety manager; Yes = 51%, No = 25%, Not sure = 24%
- Company doctor; Yes = 24%, No = 66%, Not sure = 10%
- Company nurse; Yes = 26%, No = 63%, Not sure = 11%
- Safety committee; Yes = 35%, No = 41%, Not sure = 24%.

Providers of baseline data came from a wide variety of occupations, with the most frequently occurring industries being Service(s) provision and Consultancy, Trade and Manufacture, Administration and Clerical, and Healthcare and Social care.

Approximately 25% of those who provided baseline data were absent from work at the time.

The mean duration of absence was 3.5 weeks ± 6.2 weeks, with a minimum absence of 0.2 weeks and a maximum of 36 weeks. The distribution of length of absence was highly skewed towards shorter absences.

Fifty-five percent of respondents had formal education after leaving school, with 68% acquiring further assorted qualifications, either through full-time education or vocational training.
Non-white and ethnic groups were poorly represented in the baseline data, with 339 (96.6%) describing themselves as white.

Baseline data showed a huge variety in the type of hazard exposures that workers experienced. However, “Physical Hazards” were often ranked much lower and less frequently than those classified as “Organisational” “Psychosocial” and “Environmental” hazards.

The symptoms reported by workers at baseline were varied, but of the most frequently reported symptoms, there was a high prevalence of non-specific symptoms, including back pain, headache, sleeping problems, fatigue, dry throat, cough, blocked nose, and sore throat. The mean number of symptoms reported were 4.6 ± 4.3, with a min. of 0 and max. of 27

Descriptive details of participants (n=120)

Recruitment of patients into the study resulted in 120 participants (34%) of the 351 potential participants (26 of which were referred to the service study by their GPs).

Of the 120 agreed participants, 76 were allocated to the immediate advice group, and 44 were allocated to the delayed advice group. Of the 120 agreed participants, 26 were referred to the study by their GPs. Twenty-eight people withdrew over the course of the study, leaving 92 who completed their participation in full.

Ninety-two participants completed the evaluation, which was 76% of those who initially agreed to take part, and 26.2% of the number of people who were approached in surgeries.

Of the 92 participants who completed the evaluation, 55 were from the immediate advice group (60%) and 37 (40%) were from the delayed advice group.

Of the 325 general practice patients approached in waiting rooms, only 10 (3%) wanted to receive immediate advice from an occupational health and safety advisor.

Baseline comparisons of completed participants (n=92) and non-participants (n=210)

There was no difference between the number of males and females between the completed participants (males = 41%) and the non-participants (males = 44%).

The completed participants were comprised of 8 (10.5%) people who asked for an urgent advice appointment, with only 2 (<0%) out of 210 non-participants asking for an immediate appointment. This difference was statistically significant (P<0.00).

There was no difference in the mean ages of completed participants (n=92, mean age = 39.8 ± 11.1) and non-participants (n=210, mean age = 38.4 ± 11.3).

There was no difference in the number of people who received formal further education between the completed participant group (54.9%) and the non-participant group (55.2%).

Significantly more people worked full-time in the completed participant group (80.2%) than in the non-participant group (67.5%, P=0.02).

Significantly more people were off sick in the completed participant group (34%) than the non-participant group (20.8%, P=0.01).
There was no difference in the mean length of sickness absence taken by those sick from work between the completed participant group (n=30, mean length = 5 weeks ± 7.5) and the non-participant group (n=52, mean length = 2.6 weeks ± 5.3). However, the mean absence duration for the completed participant group was almost twice that of the non-participant group.

Completed participants consistently reported significantly more exposure to hazards than non-participants, for the four types of workplace hazards (Physical, Organisational, Psychosocial and Environmental) as well as the total number of workplace hazards.

Completed Participants (n=92) reported significantly more symptoms (6.8 ± 4.4) than non-participants (n=210, 3.8 ± 3.8) at baseline (P<0.01). Comparison of symptom reports at baseline by the GP-referred patients and those not wanting urgent advice would suggest that any differences between the two groups, in terms of symptomology at least, are not important. GP-referred patients reported a mean of 6.2 symptoms (± 4.6) compared with patients not wanting urgent advice who reported a mean of 6.4 symptoms (± 3.5). This was not statistically different.

When comparing symptoms between the completed participants and the non-participants at baseline, the mean number of reported symptoms was: Completed participants = 7.0 ± 5.2 symptoms, with non-participants = 3.8 ± 3.8 symptoms) which remained significantly different (P<0.01).
APPENDIX 7  ADDITIONAL BASELINE DATA FROM THE HEALTHWORKS SCREENING QUESTIONNAIRES

BASELINE DATA ANALYSIS – HEALTHWORKS

The Healthworks team collected baseline data from 159 individuals, not all of whom consented to participate in any “advice stage” of the evaluation. The baseline data from all 159 individuals is important to this evaluation, not least in trying to identify any differences between those who consented to have advice (and participate) and those who did not. Of the 159, 120 agreed to participate, 37 declined to participate any further, and 2 were called into see the GP before they could decide. To this extent, the analysis of baseline data took the following course:

1. Present descriptive data for all 159 providers of baseline data
2. Present descriptive data of the 47 individuals who consented to participate and were followed up at completion
3. To identify any differences between those 47 who participated to follow up and those who did not participate beyond the baseline data
4. To identify any differences at baseline between the participants who completed the study in the immediate advice group (IAG) and the delayed advice group (DAG), in order to ascertain their comparability.

RECRUITMENT STATISTICS - HEALTHWORKS

One hundred and fifty nine individuals agreed to complete baseline questionnaires when approached by the Healthworks research worker. Figure iii shows the recruitment process for the Healthworks dataset.

**Figure iii** Recruitment process and number of participants recruited (Healthworks)

Referrals from GPs are not shown, as Healthworks were solely recruiting participants into the evaluation from surgery waiting rooms, as directed by the original protocol
**Waiting room recruitment**
In terms of waiting room recruitment, 159 people were asked to participate; 37 (23.2%) did not want further participation, while 120 (75.5%) did, with 2 called in by the GP before they could decide (1.3%) Of the 120 volunteers, 73 (45.9% of the 159 asked) eventually dropped out, leaving 47 (29.5%) who participated to completion from being asked to initially participate in the waiting room.

**Waiting room and referral recruitment figures**
The number of people who provided baseline data and then either withdrew, declined to take part, or who participated to the end of the study is shown in table iii. This shows that of the 159 people who were approached to participate, 120 (34.5%) agreed to take part. Of this group, 47 (39.1% of those who initially agreed to take part, and 29.5% of the entire number of potential participants) completed their participation in full.

<table>
<thead>
<tr>
<th>Patient Decision</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Participate</td>
<td>37</td>
<td>23.3</td>
</tr>
<tr>
<td>Called away to see GP before decision could be given</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Agree to participate but withdrew before follow-up</td>
<td>73</td>
<td>46</td>
</tr>
<tr>
<td>Participated and Completed</td>
<td>47</td>
<td>29.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>159</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**Descriptive analysis of baseline data for 159 primary care patients**
Table iv shows the breakdown of the sex of those who provided baseline data.

<table>
<thead>
<tr>
<th>Sex</th>
<th>N</th>
<th>Percent</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>66</td>
<td>41.5</td>
<td>42.3</td>
</tr>
<tr>
<td>Female</td>
<td>90</td>
<td>56.6</td>
<td>57.7</td>
</tr>
<tr>
<td>Unknown</td>
<td>3</td>
<td>1.9</td>
<td></td>
</tr>
</tbody>
</table>

The mean age of those who provided baseline data was 38.6 years ± 11.5, minimum 18, maximum 66 (n=154). The kurtosis of the age value was −0.91 which suggests the age distribution was normally distributed, as shown in figure iv.
Figure iv Age distribution of baseline data providers (Healthworks)

SUMMARY OF RECRUITMENT / BASELINE DATA (Healthworks)

Descriptive details of baseline respondents (n=159)

Of the providers of baseline data, 82.4% were working in full-time jobs.

Providers of baseline data came from a wide variety of occupations, with the most frequently occurring industries being (in order) Administration and Clerical, Service(s) provision and Consultancy, Trade and Manufacture, Education, Healthcare / Social care, and Retail.

Seventy-four percent (n=118) had received some form of Health and Safety training in their current job, while 26% had not (n=41).

Baseline respondents were asked if they had access to the following services in their workplaces:

- Trades Union; Yes = 57%, No = 34%, Not sure = 9%
- Safety representative; Yes = 38%, No = 41%, Not sure = 21%
- Health & Safety officer; Yes = 68%, No = 20%, Not sure = 12%
- Company Health & Safety manager; Yes = 53%, No = 24%, Not sure = 23%
- Company doctor; Yes = 30%, No = 53%, Not sure = 17%
- Company nurse; Yes = 29%, No = 53%, Not sure = 18%
- Safety committee; Yes = 38%, No = 38%, Not sure = 24%

Approximately 32% of those who provided baseline data were absent from work at the time.

The mean duration of absence was 3.4 weeks ± 9.6 weeks, with a minimum absence of 0.5 weeks and a maximum of 65 weeks. The distribution of length of absence was highly skewed towards shorter absences.

Seventy-six percent of respondents had formal education after leaving school, with 81% acquiring further assorted qualifications, either through full-time education or vocational training.

Data came from a wide range of ethnic groups, with 80 describing themselves as white (51.3%), 19 as black Caribbean (12.2%) and 17 as black African (10.9%). Other ethnic groups represented to a lesser degree included Bangladeshi, Chinese, Pakistani, and Indian.
Baseline data showed a huge variety in the type of hazard exposures that workers experienced. However, “Physical Hazards” were often ranked much lower and less frequently than those classified as “Psychosocial” “Organisational” and “Environmental” hazards.

The symptoms reported by workers at baseline were varied, but of the most frequently reported symptoms, there was a high prevalence of non-specific symptoms, including headache, back pain, fatigue, anxiety, sleeping problems, and cough.

**Descriptive details of participants (n=120)**
Recruitment of patients into the study resulted in 120 participants (76%) of the 159 potential participants.

Of the 120 agreed participants, 73 withdrew over the course of the study, leaving 47 (29.5%) who completed their participation in full.

Of the 47 participants who completed the evaluation, 22 (46.8%) were from the immediate advice group and 25 (53.2%) were from the delayed advice group.

Of the 159 general practice patients approached in waiting rooms, only 9 (6%) wanted to receive immediate advice from an occupational health and safety advisor.

**Baseline comparisons of completed participants (n=47) and non-participants (n=39)**

There was no difference between the number of males and females between the completed participants (males = 32%) and the non-participants (males = 38%). Sex was unknown for n=3 of the non-participants.

The completed participants were comprised of 5 (10.6%) people who asked for an urgent advice appointment, with only 1 (2%) out of 39 non-participants asking for an immediate appointment. This difference was statistically significant (P<0.00).

There was no difference in the mean ages of completed participants (n=47, mean age = 40.7 ± 12.7) and non-participants (n=36, mean age = 41.5 ± 10.6).

There was no difference in the number of people who received formal further education between the completed participant group (70%) and the non-participant group (70%).

There was no difference in the number of people who worked full-time in the completed participant group (83%) than in the non-participant group (84%).

There was no difference in the number of people who were off sick in the completed participant group (38%) than the non-participant group (23%).

There was no difference in the mean length of sickness absence taken by those sick from work between the completed participant group (n=18, mean length = 2.6 weeks ± 5.6) and the non-participant group (n=9, mean length 2.6 weeks ± 3.1).

There were no significant difference in the total number of hazards workers were exposed to between the completed participants and non-participants at baseline.

Completed participants reported significantly more symptoms (5.8) than non-participants (3.3) at baseline (P=0.01).
GLOSSARY

The following is a list of terms used in this evaluation.

**Baseline**
The point of attempted recruitment into the study, before any occupational health advice interviews have been attended, when the Screening Questionnaire is administered to Potential Participants.

**Combined**
This term relates to any results presented that is based on the combined SOHAS and Healthworks data, and is clearly marked “Combined”.

**Completed Participants**
Persons who took part in the evaluation who completed both the Screening Questionnaire and the Follow-Up Questionnaire, after being allocated to either the Immediate Advice Group (IAG) or the Delayed Advice Group (DAG).

**Delayed Advice Group (DAG)**
The group of participants who received an occupational health advice interview approximately 4 months after being enrolled into the study. Follow-up questionnaires were administered to this group just before receiving the delayed occupational health advice interview.

**Drop-out**
Participants who completed the Screening Questionnaire and consented to take part in the study, but who either (i) never returned for their delayed occupational health advice interview, or (ii) were not contactable for the Follow-Up phase of the study.

**Environmental Hazards**
Hazards in the workplace which participants were asked about, including: VDU use, Temperature Problems, Air Conditioning, Lifting or Handling, Ventilation, Loud Noise, Lighting, Incorrect Equipment, Vibrations, Driving (not commuting), Passive Smoking, and Assault.

**Follow-Up**
The point, approximately 4-6 months after Baseline, when the Follow-Up questionnaire is administered to the participants.

**Follow-Up Questionnaire**
A telephone questionnaire asking participants for information about their well-being and employment, which is administered to patients only after they have received an occupational health advice interview.

**Healthworks**
Healthworks in London. One of the two teams involved in providing occupational health advice interviews. Any results presented for this team based only on the data provided by them is clearly marked “Healthworks”.

**Immediate Advice Group (IAG)**
The group of participants who received an occupational health advice interview almost immediately after being enrolled into the study. Follow-up questionnaires were administered
to this group approximately 4-6 months after receiving the occupational health advice interview.

**Kurtosis**  
A measure of the normality of any distribution of data. Values within the range –0.99 through to 0.99 are seen to be normally distributed.

**Non-Participants**  
Persons who completed the Screening Questionnaire at Baseline, but who did not wish to give consent to take part in the study any further.

**Organisational Hazards**  
Hazards in the workplace which participants were asked about, including: Pressure to do more, Understaffing, Poor Management, Constant Change, Long Hours, Too Few Breaks, Discrimination, Shift Working, Poor Training, Unfriendliness, Bullying, Sexual Harassment, and Racial Harassment.

**Participants**  
Persons who completed a screening interview and gave consent to be involved in the study and be allocated to either the Immediate Advice Group (IAG) or the Delayed Advice Group (DAG).

**Physical Hazards**  
Hazards in the workplace which participants were asked about, including: Dust, Fume, Oils, Solvents, Toxic agents, Infections, Asbestos, Biohazards, and Radioactive agents

**Psychosocial hazards**  
Hazards in the workplace which participants were asked about, including: Heavy Workload, Feeling Undervalued, Lack of Reward, Boring Work, Unreasonable Demands, Poor Support, Insecurity, Lone Working, and Unfair Treatment.

**Screening Questionnaire**  
A structured face-to-face interview questionnaire asking participants for information about their well-being and employment, which is administered to patients at baseline, when attempting to recruit them into the study.

**SOHAS**  
Sheffield Occupational Health Advisory Service. One of the two teams involved in providing occupational health advice interviews. Any results presented for this team based only on the data provided by them is clearly marked “SOHAS”.

**Total Hazards**  
The total number of Hazards from the categories of Physical Hazards, Organisational Hazards, Environmental Hazards, and Psychosocial hazards
The evaluation of occupational health advice in primary health care