Perception and provision of occupational health services in the UK

Paul Chee Seong Lian¹ and Angus W. Laing²

Introduction

In any service provision, one key criterion for its effective provision is that it is well-defined. One study on the provision of occupational health services commissioned by the Health and Safety Executive (HSE) found that there was difficulty in defining the service [1]. The International Labour Organization and the World Health Organization jointly define occupational health as ‘the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations; prevention among workers of departures from health caused by their working conditions; the protection of workers in their employment from risks resulting from factors adverse to health; placing and

Background

There is difficulty in defining occupational health services among stakeholders of the service. Concurrently, there are concerns about the state of occupational health provision in the UK.

Aims

To determine stakeholders’ perception of the services that occupational health encompasses and the level as well as the rationale behind the provision of these services.

Methods

The research was undertaken as a postal questionnaire survey of the FTSE 350 companies and selected public sector organizations in the UK. This was followed up by telephone calls to a random selection of non-respondents to obtain non-respondent data.

Results

There is a difference in opinion among managers and occupational health professionals about the services provided by occupational health. Taking into account non-respondent data to partially adjust for overestimation biases, the level of provision of occupational health services among the FTSE 350 companies is 69% and in public sector organizations is 95%, giving an average provision of 72%. Sixteen per cent of respondents thought there was a trend towards outsourcing of services. The most frequently cited reason for provision of an occupational health service was that it was for the benefit of employees.

Conclusions

There remains room for improvement in the level of occupational health services provision in large UK private sector organizations. By bridging the gap between the different stakeholders' perceptions of the remit and benefits of the service, a higher level of provision in the private sector similar to that of public sector organizations can be achieved.

Key words

Cost benefit; occupational health management; occupational health provision.

¹Exeter Occupational Health Service, Royal Devon and Exeter NHS Foundation Trust, Exeter, EX1 2HZ, UK.
²Business School, University of Glasgow, Glasgow, Scotland.

Correspondence to: Paul Chee Seong Lian, Exeter Occupational Health Service, 79 Heavitree Road, Exeter EX1 2HZ, UK. Tel: +44 1392 405062; fax: +44 1392 405063; e-mail: paul.lian@rdeft.nhs.uk

© The Author 2007. Published by Oxford University Press on behalf of the Society of Occupational Medicine. All rights reserved. For Permissions, please email: journals.permissions@oxfordjournals.org

Published online 21 July 2007 doi:10.1093/occmed/kqm052
occupational health services involve and what services are provided will be undertaken. Concurrently, this study will determine if the perception that there is a change in the method of provision from in-house to outsourced services is accurate. Finally, this research looks at the rationale behind the provision of a service.

Methods
This research was part of a larger study looking at the provision and purchasing of occupational health services in the UK. The initial aim of the research was to sample a population of all large companies (companies with >50 employees). Bunt’s [1] study indicated that provision was between 85 and 100% within companies of this size. After making phone calls to 120 companies in the initial stratified random sample from the higher risk sectors regulated by the HSE, the provision of occupational health services was found to be 54%. This sample would not yield enough companies for further study and was changed to the FTSE 350 companies (350 biggest companies in the UK by market capitalization). Nearly six million employees (~25% of employees in the private sector) are covered by this sample. For comparison, a stratified random sample of 40 public sector organizations was used. Around 20% of the total working population of the UK is employed by the public sector [9]. In total, this survey therefore potentially covers 45% of the UK working population, albeit in larger organizations.

To develop the questionnaire, semi-structured informal interviews were conducted with 30 individuals of different professions from 15 organizations to obtain knowledge of the context and structure the responses (Table 1). Individuals were interviewed from a selection of private and public sector companies. A pilot postal survey was conducted with individuals from 12 UK organizations. The predominantly tick box postal questionnaire was developed using the software SNAP, enabling the data to be optically read, thus making checking redundant. The data were transferred to SPSS version 14.0 for analysis. Prior to posting, telephone calls were made to identify the manager responsible for the service in order to personally address and send these questionnaires. They were then requested to distribute further questionnaires to the occupational health service provider and an employee representative. Thirty companies from the FTSE 350 were excluded for a variety of reasons, including being holding companies, being subsidiaries of the same company with separate listings or not having the majority of their employees within the UK. In total, 360 packs of questionnaires were sent to 320 organizations in the FTSE 350 and 40 in the public sector. After 12 weeks, telephone calls were made to a random sample of 38 FTSE 350 organizations and all the public sector organizations who were non-respondents. A telephone interview of the questionnaire was carried out with this selection of non-respondents to determine if there was a difference between respondents and non-respondents (Fig. 1).

Results
A total of 110 organizations agreed to participate in the study, yielding 131 questionnaires. Three questionnaires were sent to each organization, i.e. to the manager, health professional and trade union representative, so in some cases more than one person replied from each organization. The response rate was 31% among organizations eligible. Forty-two questionnaires (33%) were from health or safety professionals whose background was medical/nursing or safety/health and safety. Eighty-five questionnaires (67%) were received from managers who were predominantly from human resources. The number of employees covered by these organizations totalled 1,659,041.

To compare the perceptions of occupational health among the respondents, the respondents were broken into two groups, i.e. managers and professionals (Table 2). Too few responses (three) were obtained from employee representatives and one respondent status was unknown so these were excluded from the analysis. A higher percentage of managers perceived that health unrelated to work was part of occupational health compared to professionals, a difference that was statistically significant ($P < 0.05$). Looking at the four services together, just over half the respondents (52%) thought that occupational health encompassed all the services, i.e. health services related and unrelated to work, safety and welfare.

In addition to the types of services encompassed by an occupational health service, there were differences in perceptions between the two groups regarding service provision (Table 3). There was a statistically significant difference ($P < 0.05$) between managers and the professional service providers with regards to all services except safety. Overall, 92% of the respondent organizations

<table>
<thead>
<tr>
<th>Position within the organization</th>
<th>Number of people interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupational health physician/nurse</td>
<td>12</td>
</tr>
<tr>
<td>Occupational hygienist</td>
<td>2</td>
</tr>
<tr>
<td>Health and safety/risk manager</td>
<td>2</td>
</tr>
<tr>
<td>Human resources director/manager</td>
<td>3</td>
</tr>
<tr>
<td>Business and other managers</td>
<td>4</td>
</tr>
<tr>
<td>Regulators</td>
<td>4</td>
</tr>
<tr>
<td>Trade union representatives</td>
<td>2</td>
</tr>
<tr>
<td>Owner</td>
<td>1</td>
</tr>
</tbody>
</table>
PLEASE TICK YOUR ANSWERS IN INK IN THE BOXES PROVIDED (MORE THAN ONE IF NECESSARY), OTHERWISE WRITE IN THE SPACE PROVIDED.

For MANAGERS, EMPLOYEES and IN HOUSE PROFESSIONALS, please answer with respect to the organisation for which you work.

For OUTSOURCED PROFESSIONALS, please answer with respect to the organisation for which you provide occupational health services.

Q1  Sex  Male .................................................................  Female .................................................................

Q2  Job title  

Q3  At what level of the organisation are you?  
    Corporate  ........................................  Divisional ........................................  Site/ Branch ........................................

Q4  In addition to the main' primary provider, how many other provider(s) do you have?  
    None ........................................  2 ........................................  4 ........................................  Don't know ........................................
    1 ........................................  3 ........................................  Don't know ........................................

Q5  Does the organisation have a health and safety committee?  
    Yes ........................................  No ........................................  Don't know ........................................

Q6  If your organisation has a health and safety committee, are you a member of the committee?  
    Yes ........................................  No ........................................  Not applicable ........................................

Q7  Which best describes your position?  
    Professional (please go to Question 8) ........................................  
    Manager (please go to Question 11) ........................................  
    Employee (please go to Question 11) ........................................  
    Employee/ Trade union representative (please go to Question 11) ........................................

Q8  In the organisation, do you see yourself as  
    Outsourced (please go to Question 9) ........................................  In house (please go to Question 11) ........................................

Q9  If outsourced, are you  
    An independent contractor ........................................  An employee of an occupational health provider organisation ........................................

Q10  If outsourced, how long have you provided occupational health services in the organisation  
    <1 year ........................................  1 or 2 years ........................................  3 or 4 years ........................................  5 years or more ... ........................................

    Please go to Section 2.1

Q11  How long have you worked for the organisation  
    <1 year ........................................  1 or 2 years ........................................  3 or 4 years ........................................  5 years or more ... ........................................

Q12  What does occupational health involve?  
    PLEASE TICK ALL RELEVANT BOXES  
    Health related to work ........................................  Safety at work ........................................  
    Health unrelated to work ........................................  Welfare at work ........................................

Figure 1. Copy of questionnaire administered.
Q13 What services are provided in your organisation?
PLEASE TICK ALL RELEVANT BOXES
Health services related to work
Health services unrelated to work
None
Safety services
Welfare services
Don't know

If NONE or DON'T KNOW, please proceed to Question 37, otherwise please go on to the next question.

Q14 How are these services provided within you organisation?
PLEASE TICK ALL RELEVANT BOXES
Health related to work
Health unrelated to work
Safety services
Welfare services
Inhouse
Outsourced
Both inhouse and outsourced
Don't know
Not provided

Q15 Please use the space below if you would like comment on what and how services are provided within your organisation


Q16 How long has the organisation been using occupational health services?
Don't know
Number of years (please specify)

Q17 When did you last change your main/primary provider?
< 1 year
1 or 2 years
3 or 4 years
5 years or more
Never changed
Don't know

Q18 Has there been a trend in the organisation to change the method of occupational health services provision in the last 5 years?
PLEASE TICK ALL RELEVANT BOXES
From in house to
outsource
No change
Don't know

Q19 Has there been a trend in the organisation to change the method of other non-core services provision in the last 5 years?
PLEASE TICK ALL RELEVANT BOXES
From in house to
outsource
No change
Don't know

Q20 Has there been a trend in the organisation in terms of the range of occupational health services provision in the last 5 years?
PLEASE TICK ONE BOX ONLY
Increasing range of provision
Decreasing range of provision
No change
Don't know

Q21 Is formal monetary evaluation of the performance of the organisation's occupational health services undertaken?
Yes (Go to Q22)
No (Go to Q23)
Don't know (Go to Q24)

(Figure 1 Continued.)
provided health services related to work with a similar percentage providing safety services.

The breakdown of the level of provision among FTSE 350 companies and public sector organizations is as detailed in Table 4. There is a higher level of provision among public sector organizations. This is with the exception of safety services where provision among FTSE 350 companies is marginally higher. The difference in the level of service provision between the FTSE 350 companies and public sector organizations was not significant except for welfare services where there was a significantly higher provision in public sector organizations (P < 0.05).

Sixteen per cent of respondents felt that there was a trend of the occupational health service being outsourced. A smaller percentage, 4.5%, felt that there was a reverse in the trend from outsourced to in-house services. Forty-nine per cent felt that there was an increasing range of occupational health services available, while 3% of respondents indicated that there was a decreasing range of provision of occupational health services. Even though this was a predominantly closed questionnaire, respondents were able to write comments about their service. A small number of professionals (three) voiced their opinion that the occupational health service was being threatened.

As seen in Table 5, the most frequently cited reason for providing an occupational health service was for the benefit of employees. This was followed by legal/regulatory reasons.

There were no significant differences between respondents and non-respondents. However, non-respondents in the private sector provided less occupational health services than respondents. If we extrapolate this data from non-respondents, it is estimated that the level of health services related to work provision within the entire sample is ~72%.

From Table 6, it can be seen that sectors where previous studies have shown a higher level of provision, like oil/mineral extraction and the public sector, have a higher level of response to this survey [1,10]. The converse is true with newer service sectors like investment trusts, the leisure industry, information technology and retail.

**Discussion**

There were differences in perceptions between the two groups regarding the definition of occupational health, most evidently with regards to health services unrelated to work. More managers compared with professionals perceived health services unrelated to work as being part
of the remit of occupational health. In comparing the level of provision, there was also a difference in opinion, with managers perceiving that there is a higher level of services provision compared with professionals.

The different selection criteria for private (non-random) as opposed to public (stratified random) sector organizations may have introduced a selection bias. With an expected response rate of ~30%, there would need to be a relatively high initial provision rate for meaningful study. It was decided that although a potential positive selection bias might arise from using a non-random rather than stratified random sample, it was more useful to look at a sample where there was a high-level occupational health services provision with accessible demographic data. The non-response rate is another potential source of positive selection bias as organizations which are more interested and had bought/used the service would be more likely to respond. One other source of overestimation bias is that responses were from managers and health professionals who have a vested interest in service provision. This potential source of bias is a weakness of this study.

Unlike previous research of a similar nature, the resampling of the non-responders and analysis of respondents by sector help to adjust for some of these potential biases. The proposed level of provision took into account the limited non-respondent data. The extrapolation of the data cannot eliminate this positive selection bias completely, but support that this study has adjusted for some of these potential biases come from the consistent findings of this independent study with the larger HSE funded studies. Taking into account the non-respondent data and potential for biases, the level of occupational health services related to work provision among the FTSE 350 companies is estimated to be similar to that of large companies in the 2002 HSE study at 69% [11]. The level of provision in public sector organizations was consistent with previous surveys at 95% [11].

This study has demonstrated differing perceptions of occupational health between managers and occupational health professionals. These differing perceptions that need to be addressed as a mismatch between the expectations of the two groups can lead to dissatisfaction with the service provided. To address this difference in opinion, service professionals could perhaps attempt to educate service managers about the remit of the occupational health services. The authors postulate that one possible way of doing this could be by redefining the service, using a more practical definition by the International Labour Organization which states that occupational health means services entrusted with essentially preventive functions and responsible for advising the employer, the workers and their representatives in the undertaking on

(i) the requirements for establishing and maintaining a safe and healthy working environment which will facilitate optimal physical and mental health in relation to work;
(ii) the adaptation of work to the capabilities of workers in the light of their state of physical and mental health [12].

The authors feel that there is a need to stress to managers that the main remit of occupational health is health services related to work. Occupational health physicians may have some knowledge of safety and welfare services along with non-work-related illnesses but are not experts in these areas. It may be more appropriate that these other services are provided by the respective experts, e.g. health

### Table 2. A comparison of managers and professionals’ perceptions of the services that occupational health services are involved in (% respondents)

<table>
<thead>
<tr>
<th>Occupational health services involves</th>
<th>Managers (%)</th>
<th>Professionals (%)</th>
<th>Overall (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health related to work services</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Health unrelated to work services</td>
<td>81</td>
<td>60</td>
<td>67*</td>
</tr>
<tr>
<td>Safety services</td>
<td>83</td>
<td>82</td>
<td>83</td>
</tr>
<tr>
<td>Welfare services</td>
<td>76</td>
<td>73</td>
<td>74</td>
</tr>
</tbody>
</table>

*P < 0.05.

### Table 3. The perceived level of services provision among managers and professionals (% respondents)

<table>
<thead>
<tr>
<th>Services provided in the organization</th>
<th>Managers (%)</th>
<th>Professionals (%)</th>
<th>Overall (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health related to work services</td>
<td>100</td>
<td>87</td>
<td>92*</td>
</tr>
<tr>
<td>Health unrelated to work services</td>
<td>83</td>
<td>51</td>
<td>63*</td>
</tr>
<tr>
<td>Safety services</td>
<td>95</td>
<td>88</td>
<td>91</td>
</tr>
<tr>
<td>Welfare services</td>
<td>81</td>
<td>60</td>
<td>68*</td>
</tr>
</tbody>
</table>

*P < 0.05.

### Table 4. The level of services provision in the FTSE 350 companies compared with public sector organizations (% respondents)

<table>
<thead>
<tr>
<th>Services provided in the organization</th>
<th>FTSE 350 (%)</th>
<th>Public sector (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health related to work services</td>
<td>91</td>
<td>95</td>
</tr>
<tr>
<td>Health unrelated to work services</td>
<td>60</td>
<td>75</td>
</tr>
<tr>
<td>Safety services</td>
<td>91</td>
<td>85</td>
</tr>
<tr>
<td>Welfare services</td>
<td>59</td>
<td>85*</td>
</tr>
</tbody>
</table>

*P < 0.05.
and safety officers, welfare officers and general practitioners/specialists.

Accounting for the potential biases which all have an overestimation effect, it can be concluded that the level of service provision is an overestimate. The relatively low level of occupational health provision in the private sector could indicate reduced spending overall on staff benefits (especially occupational health) particularly in the newer service based sectors. Some would argue that the service sectors are low hazard and low risk and, therefore, have less of a need for occupational health services. Conversely, there is a documented increase in mental health-related illnesses and upper limb disorders associated to computer and keyboard use, so one type of hazard or illness may have been replaced by another [13].

To help increase the level of occupational health services provision, the reasons for setting up a service should be revisited. The provision of occupational health as an employee benefit and the uplifting of the company’s image were cited as two key reasons for service provision, particularly for FTSE 350 companies. Occupational health providers should use these two rationales to convince organizations to have a service. The possibility of cost savings was alluded to as another reason for having a service. A universally used methodologically sound cost-benefit evaluation of occupational health services is not available at present [14,15]. It is essential to therefore develop a gold standard or industry-wide accepted standard method to undertake a cost-benefit analysis to help managers or occupational health providers put together a business case for a service. In private sector organizations, external factors like insurance firms have an influence. There may be scope for co-operation between the professional organizations and these insurance companies to promote the provision of occupational health services. Finally, with legal reasons being the second most cited reason for service provision, in the UK, there may be a need to revisit the Health and Safety at Work Act 1974 to determine if there is a need for changes to encourage the provision of occupational health.

The nature of this study is such that it can only provide a snapshot of the industry. Occupational health is constantly evolving and it is important to repeat this type of study periodically to ensure that the speciality is keeping up with the ever changing and rapidly evolving commercial environment.

Table 5. The reasons for occupational health provision in the FTSE 350 companies as compared to public sector organizations (% respondents)

<table>
<thead>
<tr>
<th>Reasons for the provision of occupational health services</th>
<th>FTSE 350</th>
<th>Public sector</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee benefit</td>
<td>56 (62%)</td>
<td>11 (55%)</td>
<td>67 (61%)</td>
</tr>
<tr>
<td>Legal/regulatory</td>
<td>35 (39%)</td>
<td>9 (45%)</td>
<td>44 (40%)</td>
</tr>
<tr>
<td>Cost savings</td>
<td>32 (36%)</td>
<td>6 (30%)</td>
<td>38 (35%)</td>
</tr>
<tr>
<td>Improve organizational image</td>
<td>29 (32%)</td>
<td>4 (20%)</td>
<td>33 (30%)</td>
</tr>
<tr>
<td>Part of strategy</td>
<td>25 (28%)</td>
<td>8 (40%)</td>
<td>33 (30%)</td>
</tr>
<tr>
<td>Historical</td>
<td>15 (17%)</td>
<td>6 (30%)</td>
<td>21 (19%)</td>
</tr>
<tr>
<td>Reduce insurance premiums</td>
<td>15 (17%)</td>
<td>0 (0%)</td>
<td>15 (14%)</td>
</tr>
<tr>
<td>Trend</td>
<td>15 (17%)</td>
<td>0 (0%)</td>
<td>15 (14%)</td>
</tr>
<tr>
<td>HSE notice</td>
<td>4 (4%)</td>
<td>0 (0%)</td>
<td>4 (4%)</td>
</tr>
<tr>
<td>Pressure from buyers</td>
<td>2 (2%)</td>
<td>0 (0%)</td>
<td>2 (2%)</td>
</tr>
<tr>
<td>Other</td>
<td>2 (2%)</td>
<td>0 (0%)</td>
<td>2 (2%)</td>
</tr>
</tbody>
</table>

Table 6. The questionnaire respondents broken down by industrial sector

<table>
<thead>
<tr>
<th>Industrial sector</th>
<th>Number in sample</th>
<th>Number of respondents within survey</th>
<th>% Respondents in survey</th>
<th>% Respondents within industrial sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil and extractive</td>
<td>9</td>
<td>5</td>
<td>5</td>
<td>56</td>
</tr>
<tr>
<td>Public sector</td>
<td>40</td>
<td>20</td>
<td>18</td>
<td>50</td>
</tr>
<tr>
<td>Chemicals</td>
<td>11</td>
<td>5</td>
<td>5</td>
<td>56</td>
</tr>
<tr>
<td>Support services</td>
<td>14</td>
<td>6</td>
<td>6</td>
<td>56</td>
</tr>
<tr>
<td>Transport</td>
<td>17</td>
<td>7</td>
<td>7</td>
<td>46</td>
</tr>
<tr>
<td>Utilities</td>
<td>25</td>
<td>10</td>
<td>9</td>
<td>40</td>
</tr>
<tr>
<td>Banking</td>
<td>38</td>
<td>14</td>
<td>13</td>
<td>37</td>
</tr>
<tr>
<td>Engineering</td>
<td>30</td>
<td>9</td>
<td>8</td>
<td>30</td>
</tr>
<tr>
<td>Media and paper</td>
<td>24</td>
<td>6</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>16</td>
<td>4</td>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td>Building</td>
<td>30</td>
<td>6</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>Food</td>
<td>20</td>
<td>4</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>Trusts</td>
<td>21</td>
<td>4</td>
<td>4</td>
<td>19</td>
</tr>
<tr>
<td>Leisure</td>
<td>21</td>
<td>4</td>
<td>4</td>
<td>19</td>
</tr>
<tr>
<td>IT</td>
<td>11</td>
<td>2</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>Retailers</td>
<td>23</td>
<td>5</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>Property</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Household</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Key points

- The managers and occupational health service health providers had differing views of occupational health services especially with regard to the provision of health services unrelated to work. To bridge the gap in perceptions, the remit and role of the occupational health service need to be made clear by the service providers to the other stakeholders of the service.
- The provision of occupational health services is estimated at 72% in large organizations in the UK. There is a need to improve the level of occupational health services provision, particularly in large private sector organizations.
- Occupational health physicians will have to keep abreast of developments within the commercial marketplace.
Conflicts of interest

The cost of administering the questionnaire was funded by Liberty Occupational Health, part of the Liberty Mutual Group. Lian is now working for the National Health Service as a Specialist Registrar while Laing is the head of the business school at the University of Glasgow.

References