

**Evaluation of the Working Health Services projects delivered in
Borders, Dundee and Lothian**

*Prepared for
The Scottish Centre for Healthy Working Lives*

December 2010

Margaret Hanson (WorksOut)
Joel Smith (Glasgow University)
Olivia Wu (Glasgow University)

CONTENTS

Summary	2
1. Introduction	4
1.1 Overview of the programme	4
1.2 Background to the programme	4
1.3 Funding	5
2. Approach	6
2.1 Overview	6
2.2 Client journey	6
2.3 Areas covered	8
2.4 Operational differences	8
2.5 Marketing the projects	12
2.6 Governance	17
2.7 Database	17
2.8 Launch dates and time periods for data collection	18
3. Results	20
3.1 Referral rates	20
3.2 Clients' demographics	21
3.3 Clients' employment	23
3.4 Previous involvement with programme	25
3.5 Marketing	26
3.6 Health condition	27
3.7 Interventions	31
3.8 Outcome measures	37
3.9 Post intervention follow-up	42
3.10 Summary of results	45
4. Costs	46
4.1 Introduction	46
4.2 Staff costs	46
4.3 Client absences	47
4.4 Control group	49
4.5 Waiting times	49
5. Feedback from service users	50
5.1 Introduction	50
5.2 Client comments	50
5.3 Client case studies	52
5.4 Employers' views	55
5.5 GPs' views	56
5.6 AHP / Partnership comments	57
6. Discussion	58
6.1 Clients	58
6.2 Scope of service delivery	58
6.3 Operational differences	60
6.4 Potential effectiveness of the programme	60
6.5 Capacity of service	61
6.6 Benefits of web based database	62
6.7 Lessons learned for successful service delivery	62
7. Conclusions and recommendations	63
8. Acknowledgements	65
9. References	66
Appendix 1: Map of geographic areas covered by the projects	68
Appendix 2: SIC and SOC codes for clients	69

SUMMARY

Key findings

The Working Health Services (WHS) programme provided case management and access to therapeutic services for individuals with work-related health problems who worked in small and medium sized enterprises. It was successfully delivered in three areas – Borders, Dundee and Lothian – for between 12 and 24 months, in which time 1,247 cases were seen.

Improvements in health were seen on discharge, as measured using standard health tools, and these were maintained at 3 and 6 months post discharge. Altogether, 83% of cases who were absent from work on entering the programme were at work at discharge.

The service was well received by clients, employers, GPs and other health professionals.

Overview

The Scottish Government funded the Working Health Services (WHS) projects which offered support for individuals working in small and medium sized enterprises (SMEs, <250 employees) who had a health condition that was affecting them at work. The project adopted a biopsychosocial model utilising case management, and access to physiotherapy, occupational therapy and psychological therapy / counselling services, with a strong vocational focus. It was delivered in three geographic areas – Dundee (for 24 months) and Lothian and Borders (for 12 months each). Service delivery from March 2008 – July 2010 is described and evaluated in this report.

A key component of the model was the multi-disciplinary team approach, with close liaison between clinicians. Case management was delivered either through a dedicated function, or was integrated into clinical roles. All clinical staff involved with the projects attended and passed the NIDMAR (National Institute of Disability Management and Research) course. Client data was recorded on an electronic database, which facilitated record keeping and communication.

Client information

- 1,247 cases were referred into the programme; they were broadly representative of the areas from which they were drawn.
- GPs were the most common way that clients heard about the service.
- The most common health condition of cases was a musculoskeletal disorder (80%), while 11% presented with a common mental health problem, and 9% with another condition.

Service provision

Based on review by a case manager, a client received an individualised programme of support and services. The most frequently provided service beside case management, was physiotherapy; between 11-17% of cases received more than one therapy (depending on the geographic area).

Outcomes

The health tools EQ-5D and COPM were used to assess the change in cases' health status.

- For all five dimensions in the EQ-5D there were **noticeable reductions in the percentage of cases with problems from entry to discharge**. The average visual analogue scale score rose from 66 at entry to 79 at discharge (out of 100, with higher numbers indicating better health).

- Improvements were also seen with COPM performance scores where **64% of cases reported a clinically important improvement in their rating of their ability to perform tasks.**
- There was evidence of **reduced medication use at discharge** compared to entry, with more than half of cases who had been taking medication on entering the programme not taking it at discharge.
- On average the **number of GP visits for the primary presenting issue while in the programme was 1 appointment less** than in the 3 months leading up to entering the programme.
- 95% of cases who were at work on entering the programme were still at work at discharge.
- **83% of cases who were absent when entering the programme were at work at discharge;** this equates to 156 cases. Encouragingly, of the cases who had a long term absence at entry (over 31 calendar days), 78% were at work at discharge.
- The **health improvements that cases display on discharge were maintained 3 and 6 months later** (as measured using EQ-5D).
- The **clear majority of those who had returned to work on discharge were still at work 3 and 6 months later.**
- **83% of cases thought that their health condition was fully or partially resolved at discharge**
- **87% of cases thought that the programme had helped them stay at work or return to work.**
- Subjective feedback from clients, employers, GPs and allied health professionals was very positive.

Although it has not been possible to compare the results with a control group, there are indications that **musculoskeletal cases with upper limb / neck or lower limb problems took fewer days absence than might be expected** based on HSE average absence figures for work related health conditions. Those with musculoskeletal conditions affecting the back took very similar durations of absence as the average absence durations reported in HSE figures. Those with common mental health problems on average took slightly more days absence than the HSE average figure, although this calculation was based on a small sample size.

It appears that the programme had scope for increased capacity without detriment to the service delivery. This would reduce the cost per case of service delivery.

Summary

In summary, the service has been effective in improving health using a variety of measures, and in helping cases remain in or return to work.

1. INTRODUCTION

1.1 Overview of the programme

The Working Health Services (WHS) project offered support for individuals working in small and medium sized enterprises (SMEs, <250 employees) who had a health condition that was affecting them at work. The project adopted a biopsychosocial model utilising case management, whereby the case manager provided dedicated support for individuals with the clearly stated goal of retention in work or early return to work as a successful outcome. The project was delivered in three geographic areas, which each had a multi-disciplinary team of clinicians, providing physiotherapy, occupational therapy and psychological therapy / counselling, with a strong occupational focus. The clients' case manager liaised with the service providers, other health or social care providers such as GPs, and the individuals' managers to expedite a return to work or retention in work.

The project provided rapid access to these services, with the aim of offering an appointment with a service provider within 5 working days of a client's entry assessment. The service was not designed to replace existing services.

1.2 Background to the programme

There is strong evidence that work is good for health (Waddell *et al*, 2008), and that the main health conditions that typically affect employees in work (musculoskeletal disorders and mild mental health problems such as stress, anxiety and depression) can effectively be addressed using a biopsychosocial approach (e.g. Waddell *et al*, 2008). In this, the psychological and social factors that affect an individual's health condition, as well as the biological aspects, are addressed to assist the individual overcome obstacles to their retention in or return to work.

Previous studies conducted elsewhere show the effectiveness of case management and timely provision of services in helping people remain in work or return to work (e.g. Hanson *et al*, 2006). Such programmes have typically been delivered in large or public sector organisations. There are typically fewer resources (both financial and knowledge of occupational health) within smaller organisations, and those who work for SMEs often do not have timely access to work focused support for their health conditions (e.g. Pilkington *et al*, 2002). It was against this background that the Scottish Government funded this pilot project – Working Health Services (WHS) in Borders, Dundee and Lothian – to provide such a service to be delivered to staff working within SMEs.

The model was similar to that followed in OHSxtra, which had provided case management support for NHS staff with common health problems affecting them in work. A pilot study adopting this model was evaluated (Hanson *et al*, 2007), and the model was shown to be effective both for clients with musculoskeletal conditions and those with common mental health problems. The results also demonstrated the cost benefit potential of the approach in retaining staff at work and returning to work those off with both short and long-term absence, with the cost of service delivery being less than the anticipated cost of sickness absence for these staff; it was estimated that the cost of absence avoided was £1.66 for every £1 spent on service delivery (Hanson *et al*, 2007). The approach was rolled out more widely within the NHS in Scotland, and successfully integrated into occupational health services (Hanson *et al*, in press). Clients' health, measured using standard tools, showed noticeable improvements, and a clear majority (83%) of those absent on entering the programme were at work at discharge from it.

The approach also followed a model as recommended by Dame Carol Black, National Director for Health and Work, in her review (Black, 2008), which was published during the course of the WHS Dundee project. Her recommendations were based on examination of the available evidence of interventions that support employees facing health problems.

During the course of the programme, 'Health Works' a review of the Scottish Government's Healthy Working Lives Strategy (Scottish Government, 2009) identified an action to create a 'Scottish Offer' for individuals with a health barrier to entering work or who are in employment with a health condition that may compromise their ability to continue in work. This offer sets out what health services should be expected, the standards they should be delivered to, how they can be accessed and the links to wider services such as employability. Working Health Services helps to meet that objective.

1.3 Funding

The Scottish Government provided the funding for the programme, which was managed in partnership with local health boards and the Scottish Centre for Healthy Working Lives. Working Health Services was launched in the Dundee Community Health Partnership (CHP) in mid-February 2008, with funding for 24 months. It was offered for those who worked for SMEs, who lived and/ or work within Dundee city. Clients received in the period 1st April 2008 – 31st March 2010 were included in the evaluation of the project. The project was extended into two other geographic areas in the spring of 2009 with 12 months funding provided for each – NHS Borders (May 2009 – April 2010) and NHS Lothian (July 2009 – June 2010). This report covers these three working periods.

Each project received additional funding to continue or extend the service in April 2010 through the Department of Work and Pensions-funded Fit for Work projects and the Scottish Government. Through this, WHS Dundee received funding in its own right to extend the geographic spread of their project into Perth and Kinross, and Angus; this project, known as WHS Tayside, continued with the same model of service delivery as described in this report. WHS Borders and WHS Lothian were incorporated into the funding stream of the new Working Health Services Scotland (WHSS) programme, which was delivered across the whole of Scotland. WHS Lothian and WHS Borders continued to use the same delivery format as previously, whilst the new areas into which WHSS was extended adopted a telephone-based case management approach with outsourcing of physiotherapy, occupational therapy, counselling / psychological therapy and any other services required.

2. APPROACH

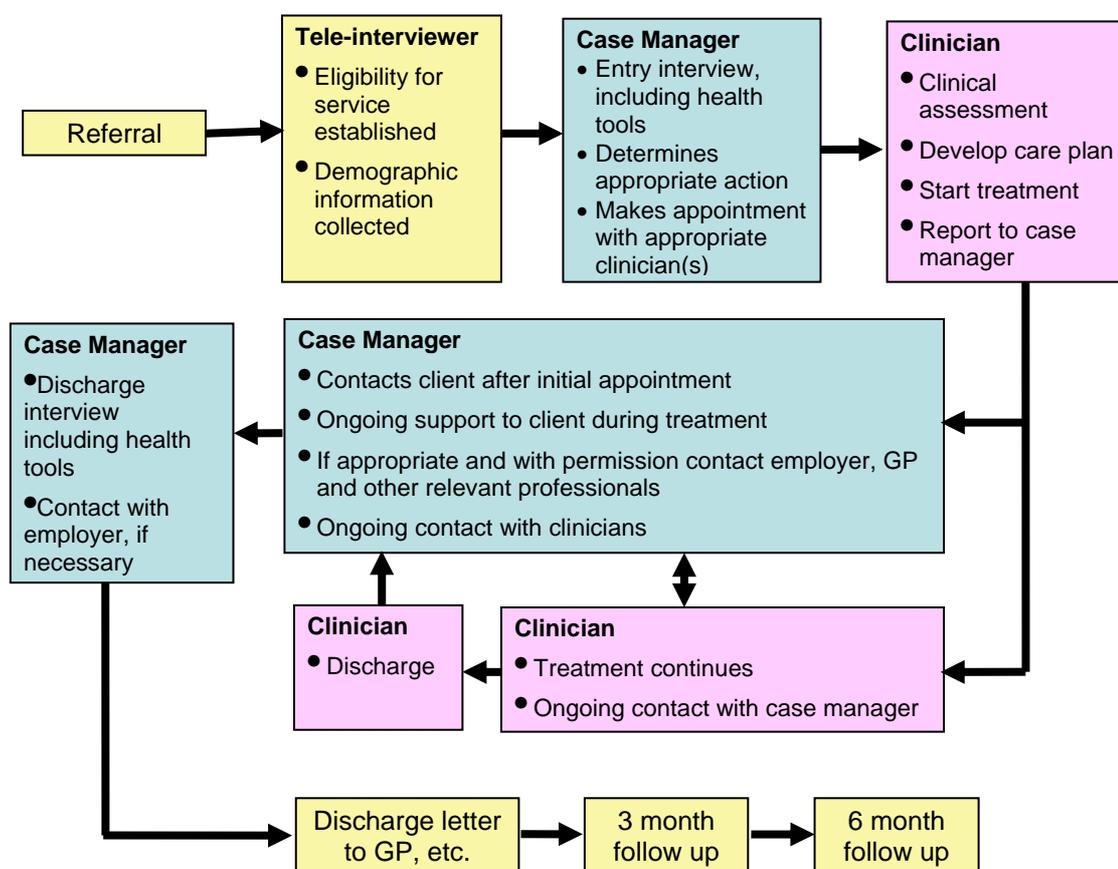
2.1 Overview

The WHS project adopted a case management approach for clients from SMEs with health problems that were affecting them at work; it provided physiotherapy, psychological therapy / counselling and occupational therapy and access to other services, with the aim of helping clients stay in, or return to, work. The project was launched in Dundee in February 2008, with projects in Borders and Lothian launched in May and July 2009 following a similar model. The general approach adopted is described in Section 2.2. For operational reasons there were some differences between the projects, which are described in Sections 2.3 and 2.4.

2.2 Client journey

The route that a client would take through the programme is shown in Figure 1 and described in more detail below.

Figure 1: Clients' route through the programme



2.2.1 Referral and eligibility assessment

Clients would be referred either by a GP or allied health professional (AHP), or would self refer into the programme. Employers were not able to refer clients directly into the project. If the client was referred by a GP or AHP, the tele-interviewer would phone the client within two working days of the referral; a self referring client would phone the service. The tele-interviewer conducted an interview with the client to establish their eligibility for the service, and to collect the required demographic information and consent (eligibility assessment). This information was recorded directly onto the project database.

2.2.2 Entry assessment and health assessment tools

The referral would be automatically flagged to the case manager who would phone the client within two days of the eligibility assessment, and undertake a more detailed interview to establish appropriate support for them. During this interview they would complete the health assessment tools, EQ-5D and COPM, and GHQ-12 where relevant (see descriptions below), which helped to establish appropriate action. Following this, the case manager would give the client an appointment with the appropriate clinician, if required.

2.2.2.1 EQ-5D

The European Quality of Life – 5 Dimensions (EQ-5D) (EuroQol Group) asks clients to rate their current status in relation to 5 dimensions: mobility, self-care, ability to perform usual activities, pain and discomfort, and anxiety and depression. There are three categories for response for each dimension, essentially 'no problems', 'some problems' and 'significant problems'. It also contains a visual analogue scale on which clients are asked to rate their health on that day on a scale from 1 – 100 where 1 = the worst health imaginable and 100 = the best health imaginable. This tool is quick to complete (typically taking less than 2 minutes).

2.2.2.2 COPM

The Canadian Occupational Performance Measure (COPM) (Law et al, 2005) asks clients to identify tasks that they have difficulty performing as a result of their health condition, and to then rate both their ability to perform the task, and their satisfaction with their performance of it, using a scale of 1-10 (1 = poor; 10 = excellent). The COPM formed the basis of what could be a detailed discussion with the client concerning the impact of their health on their work, and helped the case manager and client identify appropriate actions.

2.2.2.3 GHQ-12

The General Health Questionnaire – 12 dimensions (GHQ-12) (Goldberg and Williams, 1988) is a subjective measure of psychological wellbeing (covering anxiety, sleep loss, etc.), completed by a client. This tool was to be included at the discretion of the case manager, if they felt it was appropriate.

2.2.3 Therapy provision

It was intended that the client would have their first appointment (face to face) with a therapy provider within 5 days of their entry assessment. The therapy provider would undertake a clinical assessment, develop a care plan with the client, and deliver treatment. During the course of the treatment delivery the therapist would liaise with the case manager concerning the client's progress.

2.2.4 Case management

The case manager would review the client's progress during their treatment, and where appropriate refer the client for other services, would liaise with their GP or other AHPs, and their employer. They would also contact the client by phone to review their progress. Once suitable improvements in health / work ability were seen the client would be discharged from the service. Alternatively, if the service was no longer supporting the client adequately they would be discharged and referred on to other service providers.

2.2.5 Discharge interview

Within two days of the decision to discharge the client, the case manager would interview the client again, and administered the health assessment questionnaires to identify potential changes in health score over time. In completing these assessments the clients were not told the scores that they had given at entry to the programme.

Discharge letters were sent to GPs, and other relevant AHPs.

2.2.6. Three and six month follow up

In order to assess the longer term impact of the programme on clients' health and work / absence status, they were asked to complete a short questionnaire three and six months following their discharge from the service. In this the clients completed the EQ-5D and provided information on their absence status. This was typically administered over the phone, although where it was not possible to contact clients in this way they were sent a paper copy of it.

2.3 Areas covered

A map showing the geographic areas covered by the project is given in Appendix 1. The three areas differ in terms of their size and population (see Table 1), which led to some operational differences. WHS Dundee covered those who lived or worked in the Dundee city area, a relatively small geographic region. WHS Borders covered a large geographic area with a mainly rural population. WHS Lothian, which incorporates Edinburgh and East, Mid and West Lothian, covers a wide area, including a city and more rural areas. WHS Lothian primarily operated in the Edinburgh City area, due to the central base of the service and the size of the population it covered.

The percentage of men and women employed in the relevant areas is also shown in Table 1. The last line of this table shows the proportion of employed people who are men. For example, 77.3% of men living in Borders are in employment; of all those who work in Borders, 52.3% are men.

Table 1: Areas the services covered

	Borders	Dundee City	Lothian	
			Edinburgh City	East, Mid and West Lothian
Approximate size (square km) [†]	4,732	60	264	1,460
Approximate population*	113,000	143,000	478,000	349,000
Approximate working age population (16-64 years)*	70,000	94,000	337,000	226,000
% of men who are employed*	77.3	73.8	73.0	74.8 – 78.3
% of women who are employed*	69.2	63.9	67.8	67.1 – 73.0
% of those in employment who are men*	52.3	51.4	50.7	49.4 – 52.1

[†] Office for National Statistics
<http://www.statistics.gov.uk/STATBASE/Expodata/Spreadsheets/D5966.xls>

* Office for National Statistics (data for 2009)
<https://www.nomisweb.co.uk/reports/lmp/la/contents.aspx>

2.4 Operational differences

2.4.1 Entry criteria

The original intention had been that clients would work for a SME in the eligible area (or live in the eligible area) and have a health condition that was affecting them at work. For local operational reasons, there were some differences between the areas in the application of these criteria, as shown in Table 2, which are discussed further below.

Table 2: Entry criteria

	WHS Borders	WHS Dundee	WHS Lothian
Self employed or <250 employees	Yes	Yes	No
Live in area	No	Yes	Yes
Work in area	Yes	Yes	Yes
Condition impacting on ability to work	Yes	Not asked	Not asked

2.4.1.1 *SMEs*

WHS Borders and WHS Dundee only accepted clients who worked for SMEs. However, WHS Lothian accepted all clients, with the exception of NHS employees (who could receive support through the OHSxtra project). This decision was taken in order to encourage referrals by GPs and to support self referrals by accepting all requests and offering a signposting option for those outside the eligibility criteria. This meant that unemployed clients and those who worked for organisations with more than 250 employees were accepted. This resulted in 72 cases (5.8%) in the full sample (all three areas) who did not work for SMEs. In the first six months of the WHS Lothian project (July – December 2009), while there was sufficient clinical capacity in the project, clients who did not work for SMEs were provided with case management and therapeutic services. However, from January 2010 onwards, when the service was operating closer to capacity, clients who did not meet the eligibility criteria received case management and were signposted to other services but did not receive therapeutic services from the project.

In WHS Dundee, during the course of the project a small number of the larger employers expanded, from employing fewer than 250 to over 250 employees. Because a relationship had been developed with these organisations, referrals were still accepted from them.

2.4.1.2 *Geographic area*

WHS Dundee and WHS Lothian accepted clients who lived and / or worked in the geographic area (Dundee City, and Edinburgh and Lothians Community Health Partnership [CHP] areas). For a variety of logistical reasons, the WHS Borders service was open to people working in the Scottish Borders CHP area, but not those who simply lived but did not work in the area. The reasons for this included the large size of the area covered, the small size of the project team and some residents of the Scottish Borders working in England.

2.4.1.3 *Benefits and employment*

Clients could be in receipt of benefits (e.g. Employment Support Allowance, Incapacity Benefit), provided that their job was open for them to return to. If a client became unemployed during the course of their involvement with the project they were able to continue with the services they were receiving, but were not referred to additional services within the projects.

2.4.2 *Case management*

WHS Dundee had a dedicated case manager who undertook all entry and discharge assessments, as well as providing appropriate case management support to clients. This was undertaken by two different people during the course of the project.

The approach adopted by WHS Borders was slightly different, in that they did not have a dedicated case manager; case management was undertaken by the clinicians. The physiotherapist, psychological therapist and occupational therapist all attended case management training. The physiotherapist and occupational therapist each had 1 day per week allocated to undertake case management, while the psychological therapist had half a day, giving a total of 2.5 days per week for members of the team to undertake case management. In WHS Borders, the case manager was allocated based on the clients' primary presenting issue

(which was triaged by the administrator). If the case involved a simple musculoskeletal condition or a mild mental health problem the physiotherapist and counsellor respectively managed the case. If the case was more complex, or one where multiple therapy provision may have been required, the occupational therapist managed the case.

WHS Lothian intended to have a dedicated case manager; however, due to recruitment and sickness absence issues, a case manager was only in post for 5 months of the evaluation period. In the absence of a case manager, case management was undertaken by the therapists (although the counsellor did not case manage their own clients). The project manager provided some case management for the more complex cases, and for all clients from non-SME's. Time was not designated specifically for case management, but it was undertaken for all cases as required. A system was developed for allocating cases to the appropriate clinician.

All projects established systems to support the case manager in managing and monitoring cases.

2.4.3 Staffing

The numbers of whole time equivalent (wte) staff employed by the three projects are shown in Table 3; these are based on the staffing provided over 12 months (e.g. in WHS Lothian, the counsellor post was 0.5 wte, but they were appointed 3 months into the project). The figures show the staff available to work on the project, irrespective of the funding source (e.g. one wte physiotherapist worked on the WHS Dundee project on secondment), and exclude time when staff were not available to work (e.g. on maternity leave).

Table 3: Staffing provided (whole time equivalent)

	WHS Borders (1 year)	WHS Dundee (2 years)	WHS Lothian (1 year)
Project manager	0.5	0.7	1
Case manager	-	1	0.4
Occupational therapist	0.5	0.6	1
Physiotherapist	1	1.4	1
Psychological therapist	0.8	-	-
Counsellor	-	1	0.4
Administrator	0.5	1	0.5

Each project had a project manager. With the exception of WHS Lothian, they did not undertake case management or clinical work. In WHS Lothian, the project manager case managed clients from non-SMEs, but did not undertake clinical work.

WHS Dundee had considerable personnel changes during the course of the project, with long term sickness absence and loss of the project manager, two maternity leaves, and the case manager being recalled from secondment 18 months into the project (September 2009). There was an interim case manager before two permanent case managers were appointed in April 2010.

WHS Lothian also faced challenges with recruitment, long term sickness and redeployment and resignation of both case managers which presented operational challenges. In addition to the posts above, WHS Lothian had a member of the Lothian Community Help and Advice Initiative (CHAI), which provides debt and welfare counselling, linked full time with the project from January 2010. This position was not paid from WHS project funding.

To support those with common mental health problems, WHS Borders provided a psychological therapist while WHS Dundee and WHS Lothian provided a counsellor.

All three areas had access to occupational physician and occupational health nurse support, if required. There was very limited use of both of these resources.

All clinical staff involved with the projects attended and passed the NIDMAR (National Institute of Disability Management and Research) course during the project; this consolidated knowledge and was judged by project managers to be particularly useful for the less experienced members of the team. This accreditation of staff helped to give the service credibility, and was used when promoting the service.

2.4.4 Services offered

In addition to individual therapy sessions, both WHS Lothian and Borders provided group functional restoration / work hardening classes for clients. These types of classes are supported by the literature, and seen as a normal part of vocational rehabilitation; it was judged to be helpful to establish these in response to the needs of some WHS clients.

WHS Borders started a 'Working backs' class in February 2010. Each course involved 6 weekly sessions of 90 minutes and provided exercises and education on managing back pain. These classes ran consecutively, and attendees were referred from the WHS project or occupational health service (class size 6-12 people). It is estimated that 12 WHS clients had been through the programme by the end of April 2010. This initiative has not been formally audited by the programme, although anecdotal evidence suggests that it was well received by clients and was highly effective.

WHS Lothian delivered a work hardening course twice in the early summer of 2010. Each course was 2 -3 hour session once per week, over 6 weeks. Altogether 6 clients attended.

2.4.5 Clients

Due to location of the service, and the staff members' professional contacts, WHS Lothian received a higher number of clients with cardiac, stroke and neurological problems than the other areas. These clients tended to have complex problems, requiring considerable support to return to work. WHS Borders and WHS Dundee tended to have more acute clients, and those with common health problems (musculoskeletal disorders and common mental health problems). Further information on the health conditions of clients by area is given in Section 3.6.1.

Clients who were identified as not eligible were signposted to other potential services during their initial phone call.

2.4.6 Location of service delivery

WHS Borders had office accommodation within the NHS Occupational Health department in Melrose. However, the size of the area covered by WHS Borders meant that the clinicians worked at different locations during the week in order to service the large geographic area. The physiotherapist spent one day per week at four different locations. The fifth day was spent undertaking case management. The counsellor worked primarily from one location, but undertook sessions from other locations if required by clients. The OT undertook appointments throughout the area, meeting clients at their most suitable location. The rooms used for clinical work were provided free of charge e.g. NHS Borders premises and local libraries. All clinicians had one day each week at the main department base for case management, case conferences, etc.

WHS Dundee initially operated from office accommodation in Dundee, with clinical services being delivered within one of the hospital clinical areas. However, the office accommodation

was expensive and it was a disadvantage not having the team located in one building. Approximately 15 months into the project, the project relocated to the newly refurbished out-patients' facility at one of Dundee's hospitals. The team's clinical and administrative staff were therefore based in one area, and this was found to have operational advantages through enhanced team work and communication. There was also benefit in being located beside the NHS out-patient department, as it fostered links with the NHS physiotherapy service, which facilitated referral of potentially eligible clients to the WHS Dundee project.

WHS Lothian was based on a hospital site in Edinburgh, with the clinicians and administrators located together. Clinical services were delivered primarily at this site, but staff were able to meet clients at alternative locations when required. The use of other facilities in the area was pursued during the project and secured in West Lothian following completion of the first year.

2.5 Marketing the projects

2.5.1 Overview

Marketing the service was essential for gaining referrals into it; WHS Dundee gained significant experience in marketing the service, which was shared with WHS Lothian and WHS Borders when they launched approximately 12 months later. In WHS Dundee, a marketing expert was employed to develop a marketing plan; the project staff contributed significantly to its development (with ideas of where and how to promote the service) and they implemented it. The two other areas did not employ a marketing expert, but drew on the experience of the WHS Dundee project. WHS Borders employed a marketing assistant in the first 6 months, to help with raising awareness of the project.

In all three areas, considerable effort was made by the project team and management staff linked to the project to promote the service. In all cases it took some time to build the appropriate relationships with potential referrers, and referrals to increase.

2.5.2 Methods

A range of methods were used for advertising the service, and different target audiences were identified. In order to gain an insight into the effectiveness of each advertising method, discussions were held with the project teams in each area concerning their efficacy. The direct costs associated with these methods and their effectiveness as perceived by the project teams are described.

2.5.2.1 Television

The WHS Dundee service featured in two news items on local television – one at the launch of the service (Spring 2008), and one during an interview with a GP concerning the Fit Note (Spring 2010). There was no cost associated with this; it did not generate referrals.

2.5.2.2 Radio

The WHS Dundee service paid for advertisements on local radio during the spring and summer of 2008. This was expensive and was not perceived as being effective; it is thought that this was because it was difficult to explain the service in a short space of time. Only one client reported that they heard about the service through radio advertising (see Section 3.5.1).

The WHS Borders project was featured on two local radio news channels on the day of the launch event (no cost), but this is not thought to have generated any referrals.

2.5.2.3 Printed media

Articles were featured in a wide range of local media concerning the service (local newspapers, trade magazines, etc.). There was no cost associated with this, but it was not thought to be

particularly effective in generating referrals, although the trade magazines were more effective than the newspapers.

2.5.2.4 *Websites*

The three projects were promoted on the Healthy Working Lives website¹ which generated a small number of referrals. The local NHS intranets also contained information on the projects. There were no direct costs associated with this.

WHS Borders was also promoted on at least 8 other websites, including news-based websites, and relevant fora (e.g. Borders Chamber of Commerce, Borders Business Forum, Borders Health in Hand, Borders Business Gateway), again without any direct costs associated.

WHS Lothian was promoted on the employability network websites in Edinburgh and Mid-Lothian, as well as the Edinburgh online mental health information service (edspace). Information about the service was also placed on GPs' surgery computer systems in WHS Lothian (see Section 2.5.3.3).

2.5.2.5 *Leaflets and posters*

Leaflets describing the services available, the eligibility criteria, and contact details were developed, and issued to potential clients, health professions, employers and social work departments through a variety of routes described in Section 2.5.3. There was some cost in printing this material. Providing potential referrers and clients with information about the service in this way was thought to be effective.

2.5.2.6 *Conferences and presentations*

Staff from the projects attended conferences, seminars and networking events to promote the service. They selected events that were free to attend, meaning there was no direct cost. These were found to be helpful in promoting the service, and generated some referrals as well as other contacts to promote the service through. The events staff attended included:

- Federation of Small Business events
- Chamber of Commerce events
- Employment / employability networks
- Care providers networks
- National STUC conference
- National NHS conference 2009
- Business networking events

2.5.2.7 *'Champions'*

During the course of the project WHS Dundee identified 'champions' who had experience of the programme, including a service user, a GP and an employer who had sent a number of members of staff to the service and had seen the benefit.

These champions were able to speak with first hand personal experience of the effectiveness of the service at events (e.g. local Chamber of Commerce) and to their peers. This was seen as

¹ <http://www.healthyworkinglives.com/advice/vocational-rehabilitation/dundee.aspx>
<http://www.healthyworkinglives.com/advice/vocational-rehabilitation/WHSLothian.aspx>
<http://www.healthyworkinglives.com/advice/vocational-rehabilitation/borders.aspx>.

very effective in promoting the project. Case studies were written up based on these experiences, and were placed in newsletters, and on the Working Health Services website².

WHS Borders and WHS Lothian did not formally use champions in their marketing, although clients did hear about the service through word of mouth, and case studies were also used on websites.

2.5.2.8 Launch events

All three areas had a launch event, which was used as a focus for marketing activity, and to which appropriate partnership organisations and employers were invited. The WHS Lothian project was officially launched by HRH The Princess Royal in March 2009.

2.5.2.9 Open days

WHS Borders and WHS Lothian held an open day to which relevant partners and businesses were invited. Attendees were mainly from the employability, allied health professionals, and business sectors. Some referrals were received as a result of this.

2.5.3 Audience

2.5.3.1 Employers

WHS Dundee sent leaflets about the service to appropriate employers in the area (identified through business listings); however, this was expensive and was not thought to be effective in generating referrals. It was found to be more effective to speak directly to an employer about the service and its benefits. This was done through employer visits and at networking events. Based on the experience of contacting employers, WHS Dundee judged that there was the greatest potential return for the marketing effort by contacting organisations that were at the larger end of the eligibility criteria (close to 250 employees).

WHS Borders bought an email list from the Chamber of Commerce of all employers in the area. Since there were only a small number of large employers in the area, these were easily identified and removed from the list. All organisations were then emailed with information about the project and a link to the website. This generated some requests for posters about the service for employers to display in their organisation.

WHS Borders also sent letters to a selection of businesses, identified through a search of the Yellow Pages. This included a leaflet about the service and 5 postcards that it was intended could be sent by the employer to any absent employees, concerning the service. This is not thought to have been effective (no clients brought these postcards with them to the sessions). These organisations were written to again following the introduction of the Fit Note, to remind them of the service.

At the launch of the project, company visits were made by the WHS Borders project team to almost 60 organisations on business estates and in local town high streets. Whilst appointments were sought this was often not possible and so visits were often unannounced, and the team members did not always speak to a manager. These visits generated some interest, but were time consuming.

For all three areas, employers could not refer directly into the service, but were encouraged to raise awareness of the service to their employees.

² <http://www.healthyworkinglives.com/working-health-services-scotland/about.aspx>

2.5.3.2. *Businesses and trade organisations*

In all three areas, the local Chamber of Commerce included information about the project in their newsletters. Team members also promoted it at seminars run by these organisations. This was found to be an effective way of generating referrals.

The National Farmers Union circulated information from WHS Borders to all their members.

WHS Lothian sent letters with leaflets to all members of the Federation of Small Businesses. Employers were visited if they invited a team member to tell them more about the project.

2.5.3.3 *GPs*

Promoting the service to GPs was seen as key in generating referrals in all three areas. This was done through letters, emails and presentations. All GP practices in the three areas were provided with posters, leaflets and business cards promoting the service, to place in waiting rooms and to be issued to potential clients. Information about the service was provided to GP practice managers as well as directly to GPs. In general, it appeared to be more effective to contact GPs directly than through the practice managers.

WHS Borders developed a referral form, which was issued electronically, along with an electronic copy of the leaflet, to GPs in a monthly email, for the first 6 months of the project. The GP referral form had to be printed and posted back to the service as the email service was not secure for patient details.

WHS Lothian was regularly promoted via a weekly information email, which was sent out via a central source to all GPs in Lothian. WHS Lothian also established a link in the GP web based referral system, so that GPs could make electronic referrals directly to the project.

The three areas offered all GP surgeries in their area a presentation concerning the project during their practice meetings / protected learning time events. There was limited uptake of these initially, but where these were given, they were found to be very effective in increasing referrals; if a practice received a presentation about the service, they typically started referring clients to it.

The service was also promoted through presentations at GP sub group meetings, practice managers' sub group meetings, the Royal College of General Practitioners' conference and associated literature.

Promoting the service to GPs was judged to be very successful in generating referrals. It is thought that the benefits of this started to be seen a few months into the project, as it took some time to promote the service.

The introduction of the Fit Note (April 2010) generated GP interest in the WHS projects, with GPs requesting more presentations at their protected learning time events. In general however, it was found that gaining meaningful engagement with GPs took a long time. This may be due to the regular introduction of short term projects and the volume of leaflets and information that they receive. Positive client experiences of using the service appeared to be the key to successful GP engagement.

2.5.3.4 *Allied health professionals*

The projects were also promoted via presentations, letters and contacts, to other allied health professionals (including the NHS physiotherapy, counselling, psychological services, occupational health services and pain clinics), and in WHS Borders, to appropriate hospital departments (including A+E, dental, renal, dermatology). Posters and leaflets were provided to display / pass to potential clients. In WHS Borders, lead nurses from these disciplines attended

a presentation about the project and cascaded the information to their staff. In all three areas, allied health professionals were able to refer clients directly to the service.

WHS Borders and WHS Lothian also provided the local social work department with posters and leaflets about the service. The projects have received visitors from AHPs wishing to understand more about WHS.

In some cases GPs and other healthcare professionals referred clients who did not meet the eligibility criteria. WHS Lothian took the decision to accept and signpost all these referrals on to more appropriate services in preference to returning them to the referrer. The case manager provided information and advice to the client as to the alternative support. This approach was considered by the service to have been critical to successful engagement with the GPs and others as it provided a consistently positive experience of the service. Feedback was given to the referrer on actions taken with all referrals, so education on alternatives to WHS was regularly provided.

2.5.3.5 *Partnership organisations*

At all three areas the services were also promoted through partnership organisations. These included:

- Skills Development Scotland
- Scottish Trade Union Congress
- Job Centre Plus
- Citizen's Advice Bureau
- Scottish Enterprise
- Remploy
- Trade Federations (builders, electricians, taxis).
- The Employability Forum (Dundee)
- Dundee City Council Employment Unit
- Dundee Healthy Living Initiative
- The Volunteer Centre Dundee
- Scottish Women's Rural Institutes (Borders)
- Joined Up for Jobs (employability network in Edinburgh)
- Midlothian Employment Action Network
- Health in Mind (Edspace – online resource directory)
- Edinburgh and Lothian wide counselling networks/providers (voluntary and NHS)

Other organisations that helped promote the service included those acting as job brokers, local NHS occupational health departments undertaking external contracts, and organisations managing the Pathways to Work contracts. One of the benefits of this partnership approach was that appropriate clients could be referred by the WHS projects to these partners, for additional support where appropriate.

WHS Lothian linked with the 'Support at Work' project (STUC and Edinburgh Council funded) which provided legal advice and information on employment rights to the project team (e.g. on DDA, employment law, etc.), so that the team could be confident in the advice they gave. They also had a close link with the Lothian Community Help and Advice Initiative (CHAI), which provided debt and welfare counselling.

The benefits of partnership working took some time to develop (so that professionals knew enough to be confident in signposting people to the service), but the projects saw it as a valuable means of promoting the service. The relationships were built through visits and meetings, as well as presentations or attendance at events and courses. Many of the links with partnership organisations were facilitated by the previous professional contacts of the team members.

2.5.4 Use of NHS waiting lists

2.5.4.1 Physiotherapy

Relatively early in the project, WHS Borders and WHS Dundee reviewed the local NHS physiotherapy waiting lists to identify potentially eligible clients, who were then written to, with the opportunity to self refer into the WHS projects. For both these areas, after the initial review of the lists, staff at the NHS physiotherapy clinics could refer any potential clients to the WHS projects, either by using the referral form or by encouraging the potential client to self refer. Where appropriate, a leaflet describing the WHS project was sent to eligible NHS clients with their NHS appointment letter, meaning they could self refer to the WHS projects. Alternatively, if clients phoned the NHS physiotherapy departments to make an appointment, they were informed of the WHS projects. Latterly in Dundee, calls to the out-patient physiotherapy department were transferred to WHS Dundee by NHS reception staff, if the client met the eligibility criteria; this was facilitated by WHS being located in the same building as the NHS physiotherapy out patient department.

There are approximately 30 physiotherapy outpatient departments in the WHS Lothian area, and it was judged that review of them all could have swamped the service with clients. They therefore reviewed the waiting lists of two physiotherapy outpatient departments, nine months into the project, and received clients from SMEs. However, review of the cases generated from this process indicated that many did not require vocational rehabilitation. Referrals from physiotherapy departments are received by WHS Lothian where there is a vocational rehabilitation requirement that routine physiotherapy is not addressing.

2.5.4.2 Psychological services / counselling

Psychological therapy for the NHS Borders is provided by Psychological Services; access to this waiting list was obtained and eligible clients were then seen by WHS Borders.

Counselling services for the NHS in Dundee and Lothian are delivered through private providers, and it was not possible to obtain access to the waiting lists, to identify potentially eligible clients or promote the service.

2.6 Governance

The project was designed and overseen by the Development Manager – Vocational Rehabilitation at the Scottish Centre for Healthy Working Lives, who met regularly with each area's project manager throughout the project.

Each project was accountable to the local NHS Board. Project Boards met monthly, and reports were circulated to relevant parties within the NHS and the Scottish Centre for Healthy Working Lives.

Each project had a steering group with a wide membership including representatives of business (e.g. STUC, Federation of Small Businesses, Chamber of Commerce), the local NHS Boards (e.g. service leads for allied health professions, public health, psychology), and local partnership organisations (e.g. Job Centre Plus). The steering groups typically initially met monthly, and once the projects were established met approximately every three months.

Clinical staff received clinical supervision from the appropriate NHS clinical service leads. Within each area, clinicians had weekly team meetings to review cases. All staff from the three areas met approximately quarterly to share experience.

2.7 Database

Integral to project management and data collection was the use of an on-line database. This was developed specifically for the project, and its design drew on experience of previous similar

projects (OHSxtra). It allowed data to be recorded directly onto the database during telephone-based assessment. It was seen as an essential tool for case management and the administration of the project. In the database, cases were categorised based on a primary presenting issue (i.e. the main health condition that they came into the programme with); however this did not enable recording of more than one health condition.

In order to enable the database to be a useful tool, it was recognised as vital for all clinical staff to maintain it with client records. In WHS Dundee this was done by clinicians during the period they were supporting the client (i.e. it was updated on each appointment), while at WHS Borders and WHS Lothian the databases were updated on discharge.

In WHS Lothian, the database was not installed and operational until May 2010, due to internal approval processes and delays associated with these. This was approximately 10 months after the project was launched. Paper records were completed until the database was installed. These then had to be entered into the database retrospectively. This was undertaken by the admin staff and the therapists when they had available time, but was labour intensive.

2.8 Launch dates and time periods for data collection

Each area had an official launch, the date of which was based on availability of key personnel (e.g. HRH the Princess Royal who launched WHS Lothian); at WHS Lothian this coincided with the start of the large marketing campaign, while in WHS Borders, marketing activity and client referral started before the official launch. In WHS Dundee, significant marketing only happened after the official launch. In each case, there was a gradual build up over 4-6 weeks from the first client being referred to a steadier stream of referrals. The timescales are given in Table 4.

Due to the funding being provided to cover a 24 (WHS Dundee) and two 12 month periods (WHS Borders and WHS Lothian), the funders requested that the analysis be undertaken using a 12 / 24 month period where the initial very low rates of referral were not included. This means that a small number of the first clients are omitted at each area for analysis (WHS Borders = 7, WHS Dundee = 5, WHS Lothian = 7).

Table 4: Launch dates and time periods for data collected for evaluation

	WHS Borders	WHS Dundee	WHS Lothian
Official launch date	3 rd June 2009	13 th February 2008	1 st July 2009
Data collection start date	1 st May 2009	1 st April 2008	1 st July 2009
Data collection end date	31 st April 2010	31 st March 2010	30 th June 2010
Duration (months)	12	24	12

Data were received for analysis in the middle of August 2010. All clients who entered the programme after the end of the data collection period were excluded from the analysis. However, there were some clients in the databases who were enrolled before the data collection end date, but discharged after it (up to August 2010); they are included in the analysis.

On the database, the last date of discharge for a client from WHS Borders was 17.8.10; there were 232 cases discharged at that time, of whom 51 cases were discharged after 31st April 2010 and are included in the analysis.

The last date of discharge from WHS Dundee was 3.8.10. Altogether, 600 were discharged at that time, of whom 139 were discharged after 31st March 2010.

Due to issues with the installation of the database at WHS Lothian, records were maintained on paper and then retrospectively entered onto the database when the system became active.

Altogether, 209 cases were discharged by 8.8.10. However, because data had to be entered into the database retrospectively, and the date of the data entry was automatically generated as the date the case was discharged, it is not possible to know how many of these cases were discharged after 30th June 2010.

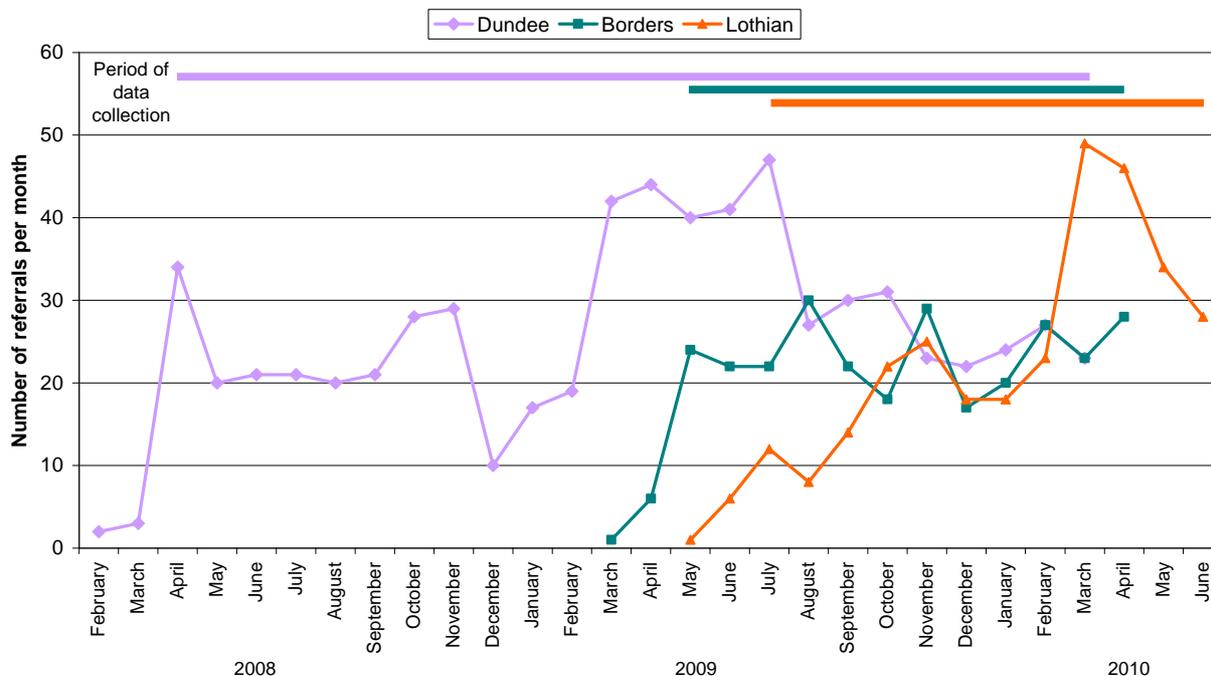
In the analysis of the data, the demographic data relates to all cases that entered the programme, while the outcome measure data relates to the discharged cases.

3. RESULTS

3.1 Referral rates

The number of referrals per month for the three projects is shown in Figure 2. The projects all experienced a slow build up of referrals over 2-3 months. As discussed in Section 2.7, the referrals before 1st April 2008 (WHS Dundee), 1st May 2009 (WHS Borders) and 1st July 2009 (WHS Lothian) were not included in the analysis (i.e. 19 cases excluded).

Figure 2: Referral rates over time



WHS Dundee experienced a rise in referrals in the spring of 2009, due to a re-focusing of the marketing activity. The subsequent reduction in referrals in the summer of 2009 is thought to coincide with the holiday season; referrals did not rise again after the summer. The reasons for this are not clear, but may be related to reduced marketing activity.

WHS Borders were able to recruit clients from the NHS physiotherapy waiting lists early in their project, and referrals relatively quickly levelled off at between 20 and 30 per month. WHS Lothian did not gain access to NHS physiotherapy lists until March 2010, which accounts for an increase in the referrals at that point. With all three projects, seasonal dips in December and January are evident, due to holidays.

The total number of cases referred into the projects over the assessed time period was 1,247, with 22.6% of these referred into the WHS Borders project (12 months), 53.6% referred into WHS Dundee (24 months) and 23.8% referred into WHS Lothian (12 months). Table 5 shows the average number of referrals per month for each area.

The projects had different staffing levels, as described earlier in Section 2.3.3. Based on the number of staff months available for the project, the average number of cases per clinical staff member (i.e. excluding project manager and administrator time) per month for each area is given in Table 5. These figures are relatively low, indicating that the services may not have been operating at full capacity.

In the initial months of the projects, while they were marketed, none of the projects worked at capacity. The projects aimed to offer clients appointments within 5 working days of their initial contact with the service, and this was usually easily achieved, even during the months with

higher referral numbers. During the project WHS Dundee and WHS Lothian did not have waiting lists for any of their services; the demand on the service did not exceed the available resource. The WHS Borders physiotherapist had a short waiting list at one location, but no other WHS Borders locations / services had waiting lists. These data also suggest that the projects were not working at capacity.

Table 5: Referrals into the projects

	WHS Borders	WHS Dundee	WHS Lothian
Time period	1 st May 2009 – 31 st April 2010	1 st April 2008 – 31 st March 2010	1 st July 2009 – 30 th June 2010
Number of cases	282	668	297
Average number of cases / month	23.5	27.8	24.8
Number of clinical staff months	27.6	95.4	33.5
Number of cases per clinical staff month	10.2	7.0	8.9

3.2 Clients' demographics

Because individuals could enter the programme more than once, each unique entry is referred to as a case; each individual person is referred to as a client. During the time period, 1,247 cases received support from it; of these, there were 1,187 unique individuals ('clients'). This is made up of 271 clients from WHS Borders, 628 from WHS Dundee, and 288 from WHS Lothian. The demographic data are presented for unique individuals ('clients').

3.2.1 Gender

The overall numbers of men and women coming into the projects are shown in Table 6. These are broadly similar in the three areas. There is a higher proportion of men coming into the projects than women, which may reflect the slightly higher percentages of men employed in the areas (see Table 1). Nonetheless, this finding is encouraging as men are known to generally find it harder to engage with healthcare than women (e.g. Galdas *et al*, 2005).

Data from the Scottish Government (2010) given in Table 1, show the percentage of men and women who are employed in the areas in which the programme was delivered; the figure for the percentage of people employed who are men is repeated in the first line of Table 6. The proportion of men referring into the programme is slightly higher than the proportion of men employed in the respective areas.

Table 6: Gender of clients

	WHS Borders	WHS Dundee	WHS Lothian	Whole sample
% of those in employment who are men*	52.3	51.4	50.7	-
Male clients (%)	52.8	56.2	55.1	55.2
Female clients (%)	47.2	43.8	44.9	44.8
N	271	628	283	1,182
Missing	0	0	5	5

* Office for National Statistics (data for 2009)
<https://www.nomisweb.co.uk/reports/lmp/la/contents.aspx>

3.2.2 Age

There was little difference in the average age of clients between the three areas (see Table 7), with an overall average of 44.6 years.

Table 7. Age at first contact

	WHS Borders	WHS Dundee	WHS Lothian	Whole sample
Mean	44.7	43.6	46.7	44.6
Min	18.9	18.7	20.5	18.7
Max	70.6	78.8	73.8	78.8
Std. Dev.	11.6	11.5	11.4	11.6
N	271	628	284	1,183
Missing	0	0	4	4

3.2.3 Postcode and level of deprivation

The Scottish Index of Multiple Deprivation (SIMD) was used to classify clients according to deprivation status (which is based on postcode), and this is shown in Table 8.

Taking the whole sample, there is a relatively even spread of deprivation; however, clear differences are seen between the areas. WHS Dundee has the greatest proportion from the most deprived category, while WHS Lothian and WHS Borders have the greatest proportions from less deprived categories.

Table 8. Scottish Index of Multiple Deprivation of clients

	WHS Borders (%)	WHS Dundee (%)	WHS Lothian (%)	Whole sample (%)
1 – Most deprived	4.2	28.0	15.8	19.6
2	12.1	16.5	21.1	16.6
3	28.8	12.6	18.6	17.7
4	43.9	23.4	15.8	26.3
5 – Least deprived	11.0	19.5	28.7	19.8
N	264	611	279	1,154
Missing	7	17	9	33

Data from the Scottish Government on SIMD for the relevant areas are shown in Table 9. The WHS Lothian project covered the council areas of Edinburgh City, East Lothian, Mid Lothian and West Lothian, which are described separately. Although a comparison between the project clients and the deprivation categories in these areas should be done with care (e.g. not all clients lived in these areas), it appears that the clients were broadly representative of the areas from which they were drawn.

Table 9. Scottish Index of Multiple Deprivation for the relevant areas

SIMD	Borders (%)	Dundee City (%)	Lothian			
			Edinburgh City (%)	East Lothian (%)	Mid Lothian (%)	West Lothian (%)
1 – Most deprived	2.1	34.9	11.9	2.7	7.5	18.7
2	9.3	18.5	13.0	19.1	31.8	29.5
3	32.7	15.3	16.2	26.2	19.4	18.4
4	49.0	16.0	14.9	35.6	26.5	18.7
5 – Least deprived	6.9	15.3	44.1	16.4	14.8	14.7

Source: <http://www.scotland.gov.uk/Topics/Statistics/SIMD/SIMDPostcodeLookup>

3.2.4 Ethnicity

Clients were asked about their ethnic origin, as shown in Table 10.

Table 10. Clients' ethnic origin

	WHS Borders (%)	WHS Dundee (%)	WHS Lothian (%)	Whole sample (%)
White	96.9	96.8	94.5	96.4
Asian	0.4	2.1	1.3	1.5
Mixed Background	0.4	0.3	0.4	0.3
Other background	2.3	0.8	3.8	1.8
<i>N</i>	<i>261</i>	<i>628</i>	<i>236</i>	<i>1,125</i>
<i>Missing</i>	<i>10</i>	<i>0</i>	<i>52</i>	<i>52</i>

Of the 20 clients who were from other ethnic backgrounds, 15 were European, three were central / south American, and two were African.

Data on the ethnicity of the population of Scotland, drawn from the 2001 census³, shows that 98.0% of the Scottish population were white, 1.4% were Asian, 0.3% were Afro-Caribbean, 0.2% were mixed background, and 0.2% were other background. It appears that the clients who received services from the programme were ethnically representative of the population of Scotland.

3.3 Clients' employment

3.3.1 Industry

Clients were asked the industry within which they were employed. Industry has been coded in terms of the UK Standard Industrial Classification of Economic Activities 2007 (SIC 2007). The SIC 2007 categorises industries using a five level hierarchy. The data has been coded at the second highest level. The most frequently represented industries (with over 5% of clients, N = 685) were other personal service activities (17.8%), construction of buildings (6.6%), human health activities (6.0%) and food and beverage service activities (5.8%). A detailed break down of industries in which clients were employed is shown in Appendix 2.

³ <http://www.scotland.gov.uk/Publications/2004/02/18876/32939>

3.3.2 Occupation

Clients' reported job title has been coded in terms of the Standard Occupational Classification 2000 (SOC2000). The SOC2000 categorises occupations using a five level hierarchy, in which each level defines an occupation with greater precision. Occupations were categorised at the second highest level in the database. The full list of client occupations is given in Appendix 2. The most frequently reported occupations (with over 5% of clients, N = 654) are shown in Table 11. Personal service related occupations are the two most frequently reported occupations, accounting for 23% of clients.

Table 11: The most frequently reported client occupations (N = 654)

Occupation	%
Caring personal service occupations	11.6
Leisure & other personal service occupations	11.5
Skilled construction & building trades	8.4
Administrative occupations	8.1
Textiles, printing & other skilled trades	8.0
Sales occupations	6.6
Skilled metal & electrical trades	6.4
Transport & machine drivers/operatives	6.4
Corporate managers	5.5

3.3.3 Size of organisation

The service was intended for clients who worked in small and medium sized enterprises (SMEs), i.e. organisations with fewer than 250 employees. The proportion of clients from different sizes of organisation is given in Table 12. As discussed in Section 2.3.1, WHS Lothian did not apply this criterion; a third of WHS Lothian clients were from organisations with more than 250 employees. Those who were self employed made up 6.5% of the whole sample, with more self employed clients in WHS Borders than the other areas.

Table 12: Size of organisation

	WHS Borders (%)	WHS Dundee (%)	WHS Lothian (%)	Whole sample (%)
Organisation with <250 employees	87.8	95.5	52.5	84.1
Organisation with >250 employees	1.1	0.3	34.0	8.0
Self employed	10.7	4.2	7.7	6.5
Other	0.4	0.0	5.8	1.4
<i>N</i>	271	626	259	1,156
<i>Missing</i>	0	2	29	31

3.3.4 Full or part-time work and hours worked per week

The mean number of hours worked by clients was 36.1 per week, with this being broadly similar for all three areas (WHS Borders = 36.4, WHS Dundee = 36.4, WHS Lothian = 34.9). The maximum number of hours reported to be worked per week was 100, with 2 hours being the

reported minimum. In total, 13% of clients worked fewer than 25 hours per week. Data were missing for 67 clients on this variable.

3.3.5 Salary

Clients were asked to give an indication of salary in £10,000 bands; the responses are shown in Table 13. Clients were given an option of not answering this question. For all three areas, the most frequent response was a salary of between £10,000 and £20,000. Only 10% of the whole sample reported earning a salary of over £30,000.

Table 13: Salary of clients

	WHS Borders (%)	WHS Dundee (%)	WHS Lothian (%)	Whole sample (%)
Less than £10K	15.5	13.0	17.8	14.8
£10-£20K	69.8	47.9	44.2	52.9
£21-£30K	12.2	27.6	21.3	22.1
£31-£40K	1.7	8.9	12.2	7.7
£41-£50K	0.0	1.3	3.0	1.4
£51-£60K	0.0	0.7	0.5	0.4
£61-£70K	0.4	0.2	0.5	0.3
More than £70K	0.4	0.4	0.5	0.4
<i>N</i>	238	460	197	895
<i>Missing</i>	33	168	91	292

This can be compared with data on median Scottish salaries; in 2008 the median gross annual full time earnings in Scotland was £24,105, and in 2009 was £24,991 (Annual Survey of Hours and Earnings, Office for National Statistics, 2010). Furthermore, data from the Scottish Government (2010) show that the average annual salary in Dundee City was £21,800, in Borders was £22,800, in Edinburgh City was £27,000, in East Lothian was £25,200, in Mid Lothian was £22,100 and in West Lothian was £22,100.

The salary of the majority (68%) of clients entering the programme is lower than £20,000, and therefore lower than the average salary in any of the areas in which the service was delivered. It may be that a greater proportion of those with higher salaries were not willing to state them, or that the earnings of those who work for SMEs are not representative of the earnings of all those employed. However, it appears that the service is mainly being accessed by employees with lower salaries.

3.3.6 Workplace health and safety committee

Of the 751 cases who answered the question about whether there was a health and safety committee at their work, 86.4% did have such a committee, 6.1% said they did not, and 7.5% were unsure.

3.4 Previous involvement with programme

At entry, clients were asked whether they had previously been involved with the programme (Table 14), with each entry into the programme being considered a separate case.

Only 47 cases (3.8%) were re-referrals, with half of these being for the original condition, and half for a new condition. As might be expected, there were more clients with a previous involvement in WHS Dundee (where the project had run for longer) than with the other areas.

Table 14. Previous contact with the project

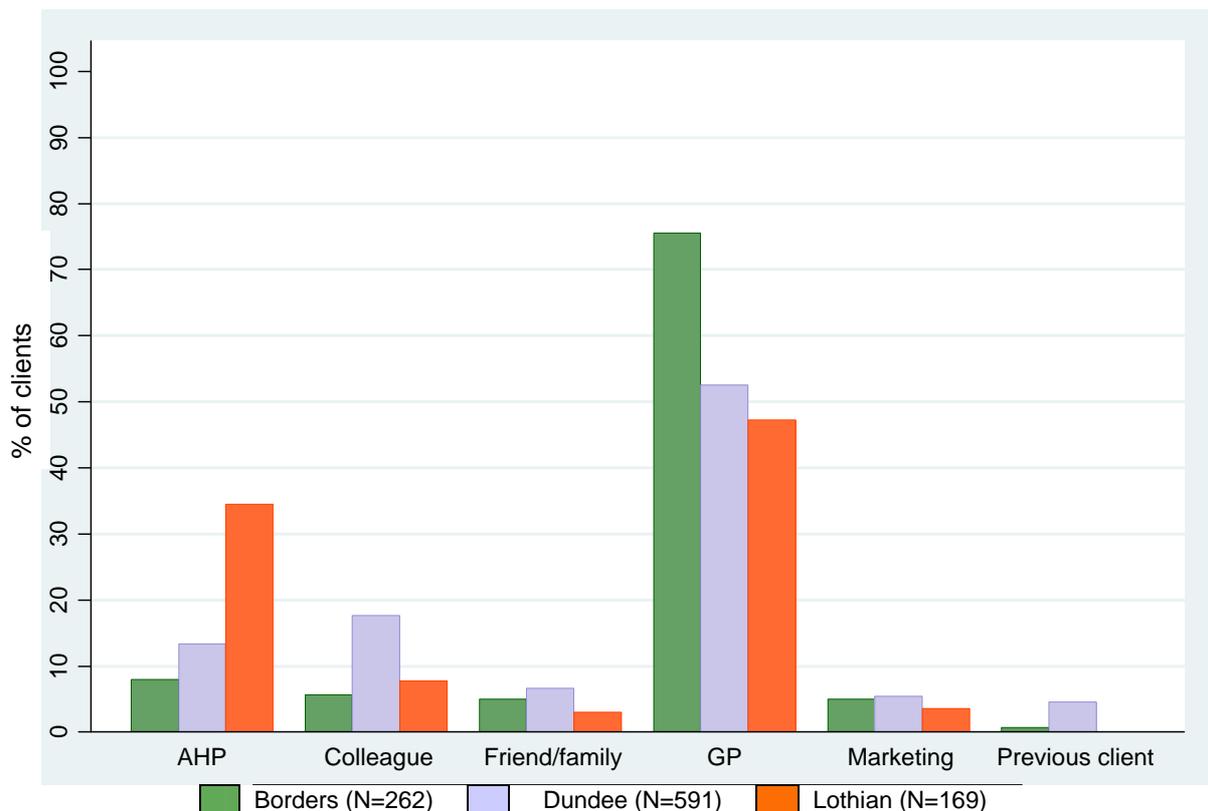
	WHS Borders (%)	WHS Dundee (%)	WHS Lothian (%)	Whole sample (%)
New referral	96.8	94.3	100	96.2
Re-referral for previous condition	0.7	3.2	0	1.9
Re-referral for new condition	2.5	2.5	0	1.9
<i>N</i>	280	666	288	1,234
<i>Missing</i>	2	2	9	13

3.5 Marketing

3.5.1 Means of hearing of service

As described in Section 2.4, an extensive marketing campaign was conducted, which included presentations, radio advertising, leaflets, posters, and letters to GP practices and to employers. Figure 3 shows the distribution of responses as to how clients heard about the service. Data were missing for 225 clients for this variable.

Figure 3. How clients heard about the service



GPs provided the greatest number of referrals, overall accounting for 58% of referrals, with this route being particularly effective in WHS Borders. Hearing about the service through Allied health professionals (AHPs) included via NHS physiotherapy waiting lists, or other health professionals. This was a particularly effective means in WHS Lothian, where referrals often came from the cardiac and stroke units, based at the same site as the project.

Direct marketing activities (leaflets, posters, etc.) generated only a small number of referrals (5% of the whole sample). Word of mouth, either via a colleague, family member or friend, generated 18% of referrals. This suggests that engaging individuals (both professionals and members of the public) with the programme, who are able to promote it to their contacts, is the most effective means of encouraging referral into these projects.

3.5.2 GP practices represented

The main route of referral was via GP practices. In Borders, 33 practices referred clients, with 8 practices referring 10 or more clients. In Dundee, 66 practices referred clients, with 23 practices referring 10 or more clients. In Lothian, 101 practices referred clients, although none of these referred 10 or more clients. There appears to have been a difference in approach, with WHS Borders and WHS Dundee recruiting a small group of GPs who regularly referred clients, while in WHS Lothian, a larger number of GP practices each referred a small number of clients. It is not clear why this is, but it may be due to the size of practices in different areas.

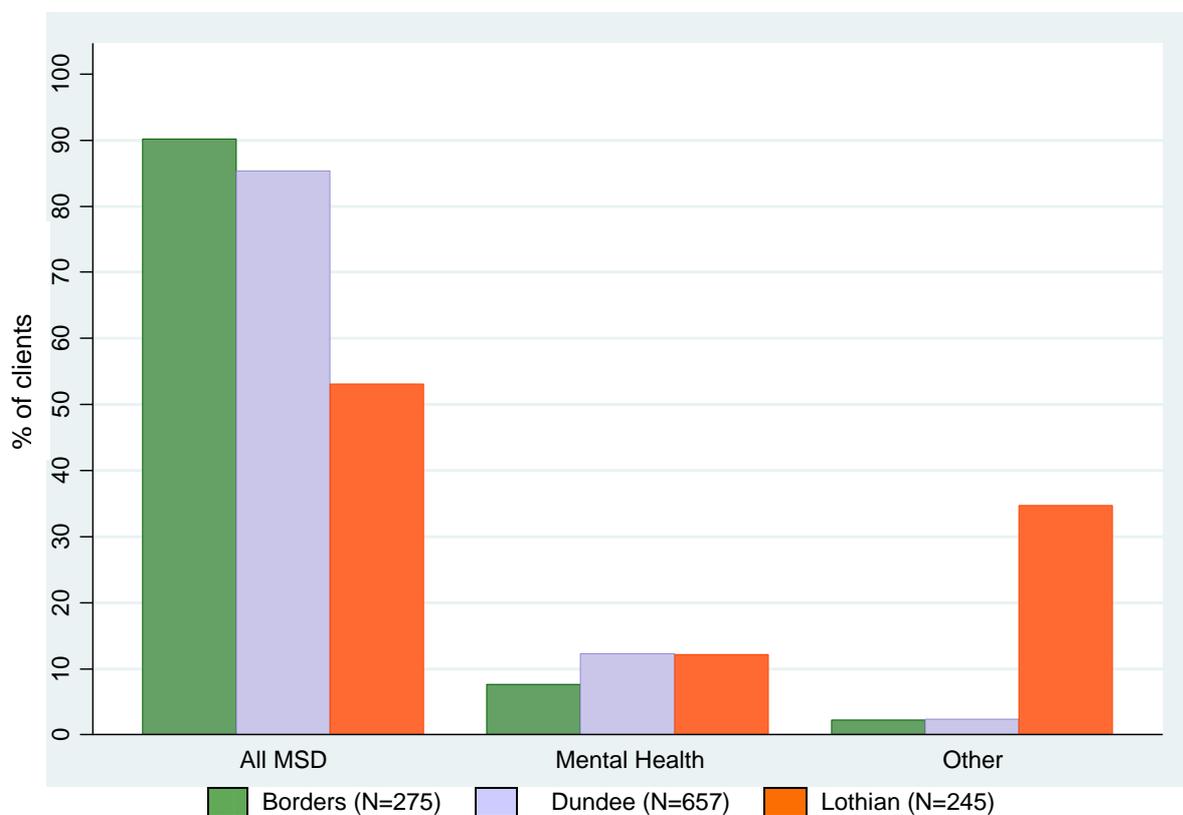
3.6 Health condition

3.6.1 Primary presenting issue

Cases were asked for their main reason for referring into the service (primary presenting issue). If more than one condition were given, the first stated was considered to be their primary presenting issue. These were classified into 'musculoskeletal disorders' (MSDs), 'common mental health problems' (CMHP) and 'other'.

The percentage of cases from each area with different primary presenting issues is shown in Figure 4.

Figure 4. Primary presenting issues of clients



Altogether there were 943 cases who presented with a MSD (79.7%), 132 cases presented with a common mental health problem (11.2%) and 102 cases presented with another health

problem (9.1%). Data were missing for 70 cases. Of the other health conditions, 49 (i.e. 4.1% of the whole sample), had a circulatory condition (e.g. stroke, heart related), and 23 (i.e. 1.9% of the whole sample) had a condition related to the nervous system. There were a small number of people who had other health conditions, including neoplasm, respiratory and digestive system problems.

There was a higher proportion of cases with other health conditions from WHS Lothian, due to links with other hospital departments (e.g. cardiac, stroke) that referred cases. The health conditions with which cases in WHS Borders and WHS Dundee presented were broadly similar, with a slightly higher percentage of MSD cases in WHS Borders than WHS Dundee, and a slightly lower percentage of cases with common mental health problems.

Diagnoses recorded on the database by the clinicians were reviewed to identify whether clients presented with one condition, but were recorded as having another during the course of their involvement with the programme. Diagnoses were not completed in all cases, but where it was possible to identify this, 22 cases that presented with an MSD, and one client with another condition, were also recorded as having a common mental health problem. Conversely, five clients who presented with a common mental health problem were subsequently also recorded as having a musculoskeletal condition. It is therefore not thought that there was significant incorrect assignment of the primary presenting issue (which was based on information provided by the cases).

In the following sections, the data are presented for the primary presenting issues. The 70 cases for whom there is no record of their primary presenting issue are excluded, as most other data were also missing for these cases.

3.6.2 Duration of condition prior to enrolment

Table 15 shows the mean, minimum and maximum duration (in months) of each primary presenting issue prior to the clients' enrolment to the programme. This is shown only for cases who reported this. If a case reported no duration, this is recorded as missing. Data are missing for 338 cases. Cases that had a common mental health problem or other health condition had had the condition on average more than 2.5 years, while cases that had a musculoskeletal condition had had it on average more than 3 months. The maximum durations of some conditions (40 years for MSDs, 41 years for common mental health problems, and 51 years for other conditions), indicate that some cases have lived with their health problems for all or most of their lives.

Table 15. Duration of primary presenting issue on entry to the programme

	MSDs	CMHP	Other	Whole sample
Mean (months)	3.3	32.7	33.6	22.2
Minimum (months)	1	1	1	1
Maximum (months)	480	492	612	612
Std. dev. (months)	49.2	67.6	93.6	57.1
N	714	116	79	909
Missing	229	16	23	268

3.6.3 Absent from work with a previous similar condition

Cases were asked whether they had previously been absent from work with a similar condition to the one that they contacted the service for (Table 16). Altogether, 19% of cases with MSDs

had previously been absent with a similar condition, while more than twice as many, 40%, of those with common mental health problems had been absent previously with a similar condition.

Table 16. Absent from work with a previous similar condition

	MSDs	CMHP	Other	Whole sample
Yes (%)	18.5	40.7	29.3	21.8
No (%)	81.5	59.3	70.7	78.2
<i>N</i>	914	123	92	1,129
<i>Missing</i>	29	9	10	48

3.6.4 Medication usage at pre-intervention

Cases were asked whether they were taking medication for their condition (Table 17). Almost three quarters (73%) of the whole sample were taking medication (prescription or over the counter) for it, although the proportion was lower for those with a common mental health problem than for the rest of the sample.

Table 17. Medication use for the condition

	MSD	CMHP	Other	Whole sample
No (%)	27.6	38.2	14.9	26.7
Yes (%)	72.4	61.8	85.1	72.3
<i>N</i>	907	123	94	1,124
<i>Missing</i>	36	9	8	53

3.6.5 Absence status at pre-intervention

The absence status of cases at entry to the programme was recorded, and is shown in Table 18. Taking the whole sample, just over two thirds (68%) were at work when they came into the programme, meaning approximately a third were absent. A higher proportion of those with MSDs (74%) were at work than those with either CMHP or other health conditions. Nonetheless, over 60% of those who had a common mental health problem were at work at entry. A greater proportion of cases with other health conditions were absent on entry, reflecting the fact that this group encompassed those who had stroke, cardiac, nervous system and neoplasm related conditions.

Table 18. Absence status at pre-intervention

	MSD	CMHP	Other	Whole sample
At work (%)	74.3	61.4	24.5	68.5
Absent (%)	25.7	38.6	75.5	31.5
<i>N</i>	938	132	102	1,172
<i>Missing</i>	5	0	0	5

3.6.6 Duration of absence prior to entering programme

Of the 373 cases that were absent at pre-intervention, data were available on the duration of their current absence for 286 (76.7%) cases. This is shown in Table 19, for status by primary presenting issue. The average duration of absence at entry for the whole sample is 75 calendar days (i.e. 2.5 months). The shortest period of absence at pre-intervention is seen for the

common mental health problem cases (56 days). Longer absences are seen for those with other health conditions (average of 120 days, i.e. 4 months).

Table 19. Duration of absence prior to entering programme (calendar days)

	MSD	CMHP	Other	Whole sample
Mean	64.5	55.8	119.9	75.4
Median	19.5	27.0	72.0	27.0
Lower Quartile	7	7	21	8
Upper Quartile	63	64	179	85
Min	1	1	3	1
Max	805	326	532	805
Std. Dev.	119.5	75.9	122.0	117.0
N	182	41	63	286

3.6.7 Subjective view on impact of health condition on work

Cases were asked whether their health condition was having an impact on their ability to do their work. Table 20 shows that 90% of cases thought that it was, and that there was little difference between the health conditions concerning this.

Table 20. Cases' view of whether their health condition was affecting their work

	MSD	CMHP	Other	Whole sample
Not affecting work (%)	10.1	10.0	12.2	10.2
Affecting work (%)	89.9	90.0	87.8	89.8
N	891	120	74	1,085
Missing	52	12	28	92

3.6.8 Subjective view of ability to do their job in six months time

Cases expressed whether they thought they would be able to do their job in six months time (at the entry assessment). Table 21 shows that the vast majority (96%) thought they would be able to do so. There was little difference between the health conditions concerning this, although a greater proportion with MSDs thought they would be able to do their job, than those with other health conditions. This may reflect the more chronic nature of some of the other health conditions.

Table 21. Subjective view of ability to do job in six months time

	MSD	CMHP	Other	Whole sample
Yes (%)	96.5	92.7	91.3	95.9
No (%)	3.5	7.3	8.7	4.1
N	779	96	46	921
Missing	164	36	56	256

3.6.9 Health condition related to an accident at work

Cases were asked whether their health condition was related to an accident at work. This is shown in Table 22, where 10% of cases with a musculoskeletal condition did associate that with an accident at work.

Table 22. Health condition related to accident at work

	MSD	CMHP	Other	Whole sample
Yes (%)	9.9	1.5	7.1	8.7
No (%)	90.1	98.5	92.9	91.3
N	928	130	99	1,157
Missing	15	2	3	20

3.6.10 Number of GP visits related to the primary presenting issue in previous 3 months

Cases reported on the number of visits they had made to their GP concerning their primary presenting issue, in the three months prior to coming into the programme. The number of clients who had made at least one visit to their GP for this condition is shown in Table 23. Where cases had gone to their GP for their condition (77.2% of the whole sample), they had made an average of 2.5 visits, with those with common mental health problems and other health conditions averaging over 4 visits per case.

Table 23. Number of GP visits for the primary presenting issue

	MSD	CMHP	Other	Whole sample
Mean	2.1	4.1	4.2	2.5
Min	1	1	1	1
Max	26	24	16	26
Std. Dev.	1.8	4.5	3.6	2.6
Cases with at least 1 visit	780	115	69	964
Cases with no visits	141	16	11	168
Missing	22	1	22	45

Altogether 141 cases with MSDs, 16 cases with common health problems and 11 cases with other health conditions had not visited their GP in relation to their condition in the previous 3 months.

3.7 Interventions

3.7.1 Services provided

As described in Section 2.3 the different areas had different amounts of service provision available to them, and also received different types of cases due to their entry policy. This is then reflected in the services that were received by cases in the different areas. The percentage of cases in each area who received different combinations of services is shown in Table 24, with the service abbreviations indicating the services that were provided. This is based on data *only* from the discharged cases.

As an example, 2.2% of cases in WHS Borders received only case management, while 76.3% received both case management and physiotherapy.

The most frequently provided service, beside case management, was physiotherapy. In WHS Borders, 11% of cases received more than one therapy (beside case management), while in both WHS Dundee and WHS Lothian, 17% of cases received more than one therapy.

Table 24. Percentage of cases in the different areas who received different combinations of service provision

Case Manager (CM)	Physio-therapist (PT)	Occupational Therapist (OT)	Psychological Therapist/ Counsellor (PsyT/C)	Percentage of cases		
				WHS Borders (N=224)	WHS Dundee (N=596)	WHS Lothian (N=191)
CM				2.2	4.0	38.2
CM	PT			76.3	61.4	13.6
CM		OT		1.3	2.0	18.8
CM			PsyT/C	5.8	7.0	4.2
CM	PT	OT		8.0	11.9	9.9
CM	PT		PsyT/C	1.8	2.2	1.0
CM		OT	PsyT/C	1.3	1.5	2.1
CM	PT	OT	PsyT/C	0.4	2.3	3.1
	PT	OT	PsyT/C	0.0	0.0	0.5
	PT			2.2	5.5	5.8
		OT		-	0.3	0.5
			PsyT/C	0.4	0.2	0.5
	PT	OT		-	0.2	1.0
	PT		PsyT/C	-	-	-
		OT	PsyT/C	-	-	-
Not stated				-	-	0.5

In general, WHS Lothian offered only case management to cases from non-SMEs, which may account for the higher percentage of their cases who only received case management. The majority of the remaining Lothian clients received a combination of case management and occupational therapy (18.8%) or case management and physiotherapy (13.6%) The majority of cases in WHS Borders (76%) and WHS Dundee (61%) received case management and physiotherapy only.

3.7.2 Number of appointments provided per case

The number of appointments that were attended by cases in the different areas is given in Tables 25-27. In all the areas, the case management assessments at entry and discharge were included in the number of case management contacts. Some cases were offered appointments and did not attend any of them. These are excluded in the figures in the tables.

There were some differences between the areas in terms of service provision. Perhaps not surprisingly, it appears that where there are dedicated case managers (WHS Dundee) cases receive more sessions from case managers (average of 3.9) than where case management is integrated into clinical roles (WHS Borders, average of 2.8). WHS Lothian (average of 3.2) had

dedicated case managers for part of the time, and for part of the time this service was integrated into clinical roles.

The average number of physiotherapy sessions varied between the areas, with more being provided on average in WHS Dundee (4.8) than in WHS Borders (3.1) and WHS Lothian (2.5). This appears to be due to different practitioner practices, with the high number of therapy sessions being attributed to particular therapists. Although some cases received a high number of appointments, this was reported to be justified clinically due to the complexity of the cases.

The average number of occupational therapy sessions was relatively consistent between the three areas, being just over 2 per case.

There were differences between the areas in terms of the number of psychological therapy sessions that were provided, with the most (average of 7.1) in WHS Dundee, fewer in WHS Borders (average of 4.9) and least in WHS Lothian (average of 3.3). Clinical judgement was used to decide how many sessions were appropriate for different cases. The differences in the number of sessions of service provision received may reflect the different needs of cases in the different areas (e.g. WHS Lothian had more cases with an 'other' health condition than the other projects), rather than over or under delivery of services.

Table 25. Number of sessions provided in WHS Borders (N=224)

	Case management	Physiotherapy	Occupational therapy	Psychological therapy
Number of cases who attended at least one appointment of this service	218	199	25	22
Average number of appointments attended	2.8	3.1	2.1	4.9
Minimum number of sessions	1	1	1	1
Maximum number of sessions	12	10	7	12

Note that of the 232 cases who were discharged from WHS Borders, there was no service provision information recorded for eight of them. Seven cases were offered physiotherapy and did not attend any sessions, and one case was offered psychological therapy and did not attend any sessions.

Case management and physiotherapy were the services that were most frequently delivered in WHS Borders. Of the cases that received both physiotherapy and case management, 70% had two case management sessions – these were the entry and discharge assessments.

Table 26. Number of sessions provided in WHS Dundee (N=596)

	Case management	Physiotherapy	Occupational therapy	Counselling
Number of cases who attended at least one appointment of this service	559	482	97	72
Average number of appointments attended	3.9	4.8	2.4	7.1
Minimum number of sessions	1	1	1	1
Maximum number of sessions	29	50	22	29

In addition, 2 cases at WHS Dundee also received complimentary therapy (one received 2 sessions, the other 10); 3 cases received support from an occupational health nurse (data missing on 1 case, one case received 1 session, the other 2). One case saw an occupational physician for 1 session. These cases all received case management.

Note that of the 600 cases that were discharged, there was no service provision recorded for four. Furthermore, 15 cases were offered physiotherapy and did not attend any sessions, 6 were offered occupational therapy and did not attend any sessions, and 7 were offered psychological therapy and did not attend.

Table 27. Number of sessions provided in WHS Lothian (N=191)

	Case management	Physiotherapy	Occupational therapy	Counselling
Number of cases who attended at least one appointment of this service	174	65	67	22
Average number of appointments attended	3.2	2.5	2.5	3.3
Minimum number of sessions	1	1	1	1
Maximum number of sessions	14	10	12	7

Note that of the 209 discharged cases at WHS Lothian, there was no service provision recorded for 18 of these. There is one case recorded as receiving service provision, but the type of service is not recorded. One case was offered physiotherapy and did not attend any sessions, and another was offered occupational therapy and did not attend.

For all three areas, it should be noted that some of the cases who had not been discharged from the programme did have service delivery information recorded; some of these had received high numbers of services.

3.7.3 Number of sessions of therapy provided in the projects

The number of sessions of service delivery that were provided during the 12 and 24 month time periods that were recorded on the database is shown in Table 28. Note that this is all service provision recorded on the database, not only the sessions delivered to discharged cases,

although in some areas, the number of sessions provided to a case was not recorded until they had been discharged. The total number of clinical months for which the service was delivered (across the three areas) is also shown, and from this the average number of sessions given per clinical month has been calculated.

In order to estimate whether the service was working at capacity, the amount of time available for each session was calculated for (a) if clinicians spent 80% of their time providing sessions work, and (b) if they spent 60% of their time delivering sessions. The time period is based on a 220 day working year and a 7.5 hour working day. The anticipated duration of a typical session for each therapy type is also shown in Table 28 based on information from clinicians. However, it should be noted that session lengths can vary significantly between the different services provided; typically physiotherapy sessions will be more standard in length between cases, being about 30-45 minutes each. Psychological therapy / counselling sessions tend to be 1 hour each. Occupational therapy sessions may vary between cases and could be significantly longer than other therapy provision. Non direct case work (i.e. which is not recorded on the database) is also likely to be longer for occupational therapy than other therapies. This work can include report writing, sourcing or identifying equipment, researching and developing therapeutic resources. Although it appears from Table 28 that the service could have delivered 2-3 times the number of sessions that were delivered, care should be taken in interpreting the data.

Table 28: The number of sessions of therapy provided per clinician

	Physiotherapy	Occupational Therapy	Psychological therapy / counselling
Total number of sessions	3,234	533	847
Number of clinician months in which the service was delivered	62	32.4	38
Number of sessions per clinical month	52.2	16.5	22.3
If clinicians spent 80% of their time in clinical work (110 hours / month), time available for each appointment (hours)	2.1	6.7	4.9
If clinicians spent 60% of their time in clinical work (83 hours / month), time available for each appointment (hours)	1.6	5.0	3.7
Anticipated duration of session (hours)	0.75	2.5	1

It should be noted that WHS Borders and WHS Lothian used clinicians to undertake case management; where this was allocated specific time (WHS Borders), this was 20% of the clinicians' time, meaning these clinicians might have been spending approximately 60% of their time undertaking clinical work.

It should also be acknowledged that staff involved with the project spent considerable time marketing the service. Time was also spent by WHS Dundee modelling the service and discussing it with interested parties. Some clinical time was taken up with database related issues in WHS Lothian.

If a greater number of cases attended the programme, the cost of delivering the programme per case would be reduced. It appears that there is capacity within the programmes for this, without this having a negative impact on client waiting times for services.

3.7.4 Time between entering the programme and cases' first appointment with a therapist

The time between cases first contacting the programme, and them first receiving a therapy (excluding case management) is shown in Table 29. A case may have received more than one therapy, but for each, it is the time between when they entered the programme and when the therapy was first received that is shown. For example, a case may have received physiotherapy for several weeks before receiving occupational therapy, and this may be entirely appropriate. The time periods in Table 29 reflect this.

Furthermore, in WHS Dundee, some cases received physiotherapy from more than one physiotherapist due to the size of the team and staff changes. Because of the way that the database was set up, a new physiotherapy record was created for each physiotherapist involved in a case. It is therefore possible for a client to have received physiotherapy from two therapists where the second is recorded as starting treatment some time after the client entered the programme. This accounts for some of the high figures in Table 29. For this reason, the median values are most relevant in Table 29. It can be seen that the median number of days from entering the programme to first receiving a therapy is less than 16 days.

Table 29: Time between entering the programme and cases' first appointment with a therapist

	Physiotherapist	Occupational Therapist	Psychological Therapist / Counsellor	Other
Median (days)	11	16	10	12
Mean (days)	30.1	27.5	22.7	13.3
Min (days)	0	0	0	4
Max (days)	481	195	275	33
Std. Dev. (days)	56.5	32.9	39.8	8.9
N	948	238	160	8

2.7.5 Time between therapist contacting a case and the cases' first appointment

The length of time between a therapy provider first making contact with a case (e.g. to offer them an appointment), and the cases' first appointment is shown in Table 30. In many situations, the case was given an appointment with a therapist at the time they undertook the initial entry assessment, which means that the first appointment attended is also the date of the first attempted contact by the therapist. The mean duration is therefore very short for physiotherapy (0.6 days).

Slightly longer time periods are seen for occupational therapy (mean of 5.3 calendar days) and psychological therapy (mean of 9.1 calendar days). Longer time periods may reflect where clients have been unable to attend the appointments offered, rather than reflecting a genuine delay in the system.

Table 30: Time between therapist contacting case and cases' first appointment

	Physiotherapist	Occupational Therapist	Psychological Therapist / Counsellor	Other
Median (days)	0	3	6	11
Mean (days)	0.6	5.3	9.1	10.5
Min (days)	0	0	0	6
Max (days)	91	126	161	15
Std. Dev. (days)	4.8	12.6	16.2	4.3
N	860	238	141	6

3.7.6 Duration in programme

Based on data from WHS Borders and WHS Dundee, the average length of time that discharged cases were in the programme was 156 days (minimum 0, maximum 808, SD = 108). Data from WHS Lothian were excluded in this calculation as the discharge date was recorded on the database as the date that the data were entered; due to retrospective data entry this did not relate to the actual discharge date.

3.7.7 Discharged clients

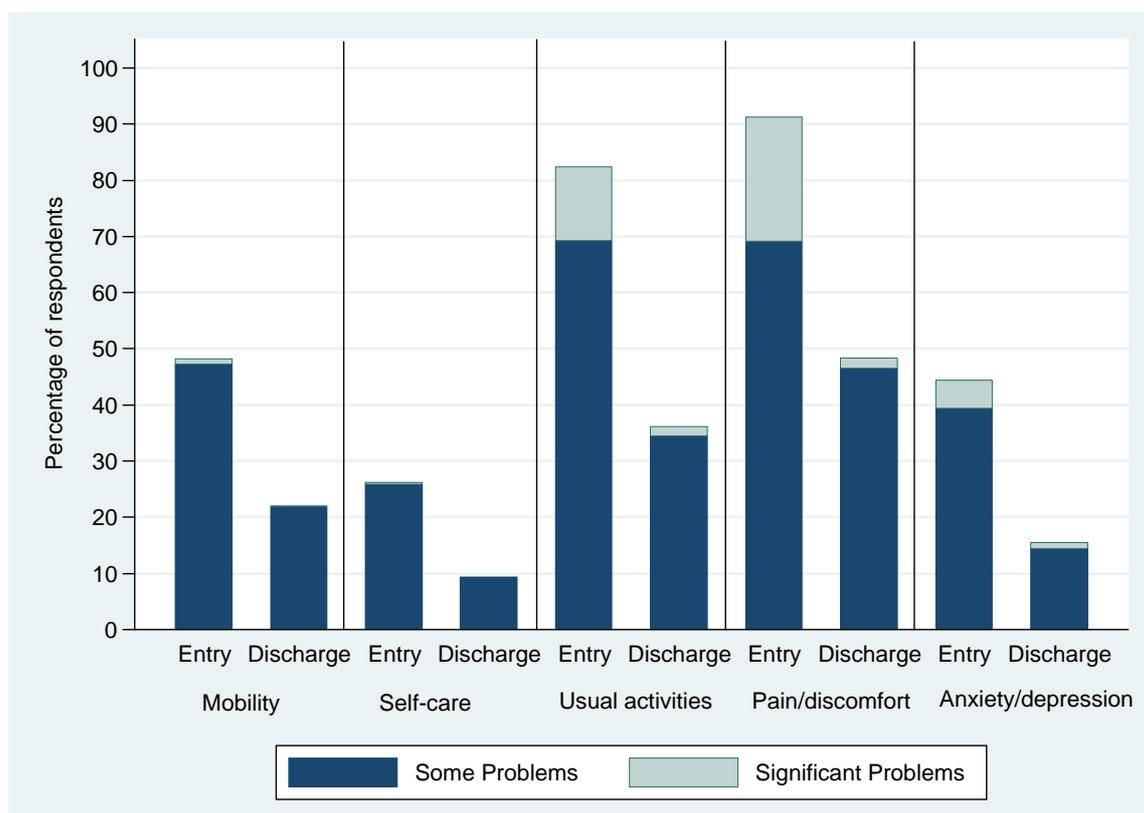
Altogether, 1,041 cases (83.5%) had been discharged from the programmes at the end of the data collection period. Of these, 824 were MSD cases, 102 had common mental health problems, and 77 had other health problems, with 38 not having a primary presenting issue specified. Of the discharged cases who had other health problems, 37 were classified as circulatory and 15 as relating to the nervous system. Of the discharged cases, 232 were from WHS Borders, 600 from WHS Dundee, and 209 from WHS Lothian.

The following outcome measures relate to this group of discharged clients.

3.8 Outcome measures**3.8.1 EQ-5D**

The EQ-5D asks clients to rate their current status in relation to 5 dimensions: mobility, self-care, ability to perform usual activities, pain and discomfort, and anxiety and depression. There are three categories for response for each dimension, essentially 'no problems', 'some problems' and 'significant problems'. Clients were asked to complete this questionnaire at pre-intervention and post-intervention; the percentage of clients reporting some and significant problems at pre- and post-intervention are shown in Figure 5.

Figure 5. EQ5D scores from entry to discharge (N=721)



- 48.2% of clients had problem with mobility at pre-intervention. This fell to 22.0% at post-intervention.
- 26.2% of clients had problem with self-care at pre-intervention. This fell to 9.3% at post-intervention.
- 82.4% of clients had problem with performing usual activities at pre-intervention. This fell to 36.2% at post-intervention.
- 91.3% of clients experienced pain/discomfort at pre-intervention. This fell to 48.3% at post-intervention.
- 44.4% of clients experienced anxiety/depression at pre-intervention. This fell to 15.5% at post-intervention.

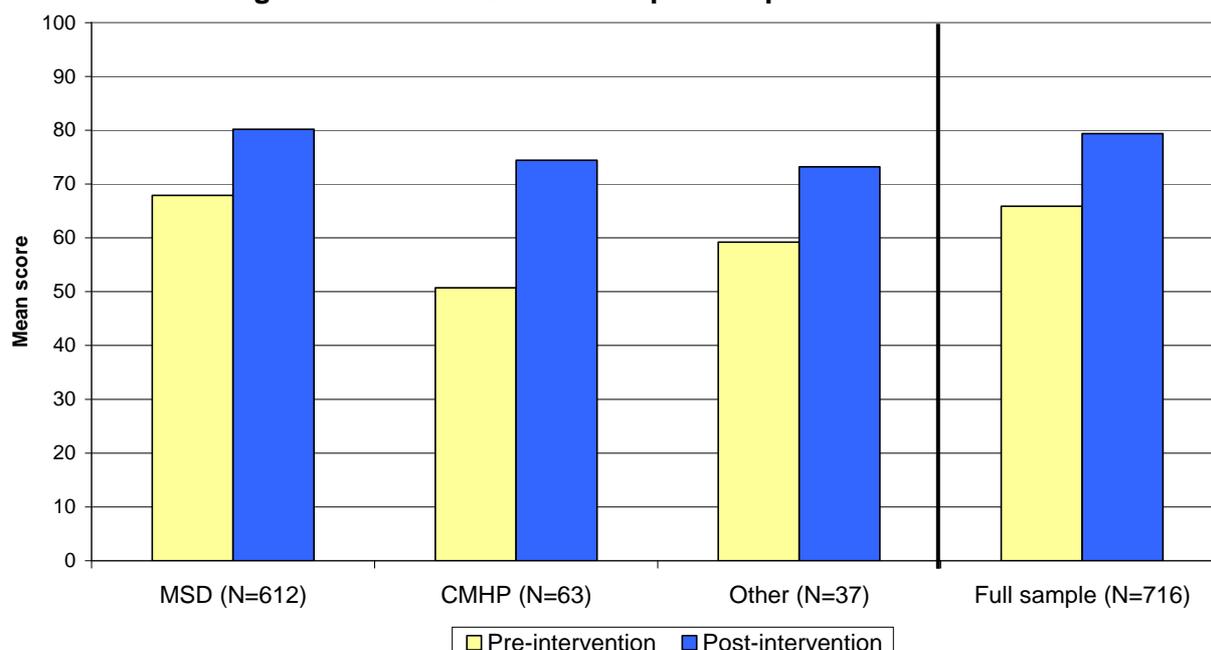
EQ5D scores at 3 and 6 months post discharge are described in Section 3.9.2.

3.8.2 EQ-5D (Visual Analogue Scale)

Clients were asked to rate their health status using a 100 point visual analogue scale (VAS). There were both pre-intervention and post-intervention scores for 716 clients. The mean VAS score for the full sample was 65.9 at entry, and 79.4 at discharge, a change of 14.5 points, as shown in Figure 6. Slightly bigger changes in mean VAS score were seen for CMHP cases than MSD cases, although the sample is much smaller.

VAS scores at 3 and 6 months post discharge are described in Section 3.9.2.

Figure 6: Mean VAS scores at pre and post intervention



3.8.3 COPM

In using the COPM as an outcome measure, the change in scores from assessment to re-assessment are the most meaningful. The COPM developers report that the research evidence to date suggests that a change of 2 or more points represents a clinically important change (Law *et al* 2005). However, it is important to remember that the COPM is an individualized measure, so the meaning of the change scores may vary by individual.

With the COPM, clients rate their ability to perform activities, and also their satisfaction with their ability to perform these activities, using a scale of 1-10 (1 = poor; 10 = excellent). Altogether, 636 cases completed the COPM both at pre-intervention and post-intervention. The mean COPM performance score for these clients changed from 4.3 at pre-intervention to 7.7 at post-intervention. The mean COPM satisfaction score changed from 3.2 to 7.5. Table 31 shows the percentage of case with changes in COPM scores.

Table 31: Percentage of cases with changes in COPM scores (N=636)

	Performance score changes (%)	Satisfaction score changes (%)
Worse >2	0.9	0.5
Worse <2	4.2	3.0
Same	7.4	6.6
Better <2	23.6	16.8
Better >2	63.8	73.1

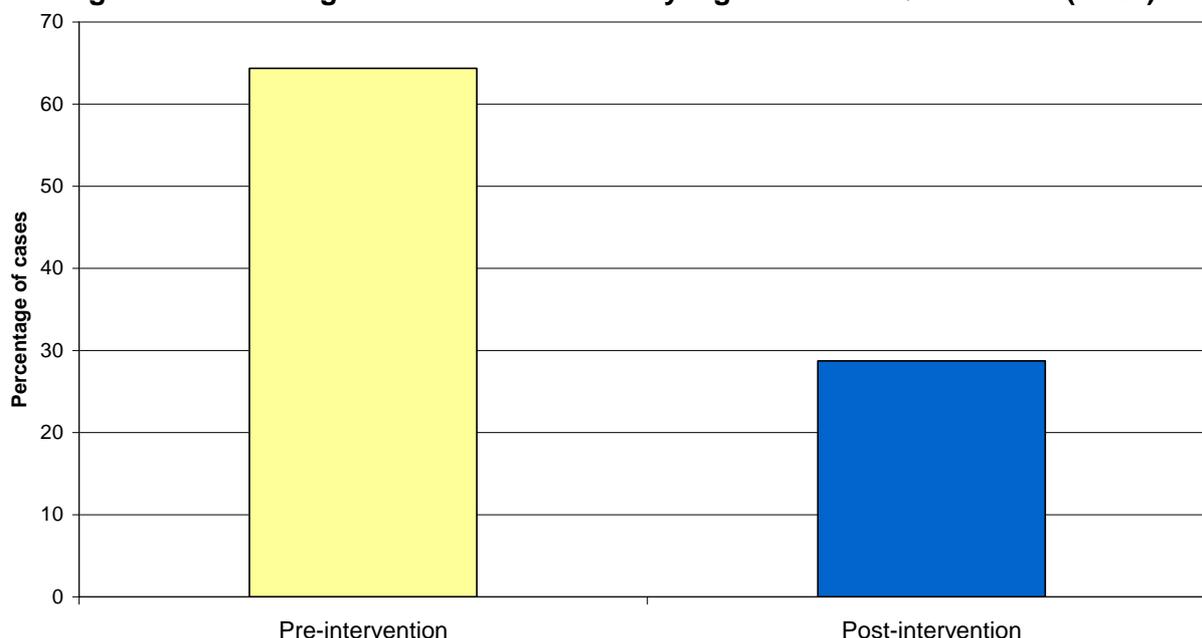
Altogether, 63.8% of cases scored their performance more than 2 points higher post-intervention than at pre-intervention. Even more, 73.1%, rated their post intervention satisfaction with their ability to perform tasks 2 or more points higher than at pre-intervention.

3.8.4 GHQ-12

The GHQ12 was used at the discretion of the clinicians and case managers. It is thought to have been used particularly with cases who had common mental health problems. Although the

sample is therefore small (n=87, 91% of which were from WHS Lothian), 64.4% of cases had a clinically significant GHQ12 scores (i.e. a score of 4 or over on the bimodal scoring) pre-intervention). This had reduced to 28.7% at discharge, indicating that the number of cases with a clinically significant GHQ12 score had been reduced by over 50% (Figure 7).

Figure 7: Percentage of cases with clinically significant GHQ-12 scores (N=87)



3.8.5 Medication usage at discharge

Altogether 450 cases who were taking medication related to their primary presenting issue at entry reported their medication use at discharge. In total, 52.9% of cases who had been taking medication for their condition at entry, were not taking any medication for it at discharge; 26.9% of cases were taking exactly the same medication; 11.8% had some reduction in their medication while 5.8% had some increase in their medication; and 2.7% had increased some of their medication but had reduced others.

3.8.6 Absence status at discharge

Of the discharged cases, 721 provided information on their absence at entry and discharge. The change in absence status from entry is shown in Table 32. Of the discharged cases, 26.2% were absent at entry; this is a slightly lower percentage than that given in Section 3.6.5 (31.5%) which was based on all cases who had entered the programme irrespective of whether they had been discharged at the point of analysis.

Of the discharged cases, 94.8% of the cases who were at work at entry were also at work at discharge, while 5.2% were now absent. Encouragingly, of the cases who were absent at entry, 82.5% were at work at discharge; this equates to 156 cases.

Table 32: Absence status of all cases at discharge

Full sample		Discharge	
		At work (%)	Absent (%)
Entry	At work (N=532)	94.8	5.2
	Absent (N=189)	82.5	17.5

Changes in absence status from entry to discharge for the different primary presenting issues are shown in Tables 33 – 35. Altogether, 86.3% of MSD cases who were absent at entry were

at work at discharge, as were 71.4% of cases with common mental health problems and 72.4% of cases with other health problems.

Table 33: Absence status of MSD cases at discharge

MSD		Discharge	
		At work (%)	Absent (%)
Entry	At work (N=486)	95.1	4.9
	Absent (N=138)	87.0	13.0

Table 34: Absence status of Common Mental Health Problem cases at discharge

CMHP		Discharge	
		At work (%)	Absent (%)
Entry	At work (N=38)	89.5	10.5
	Absent (N=22)	71.4	28.6

Table 35: Absence status of 'Other' cases at discharge

Other		Discharge	
		At work (%)	Absent (%)
Entry	At work (N=8)	100	0
	Absent (N=29)	72.4	27.6

Cases who were absent at entry were considered in more detail, concerning the duration of their absence prior to coming into the programme. Cases were classified as short term absence (30 calendar days or less) and long term absence (31 calendar days or more). This was to approximately represent a 4 week time period, after which cases may be considered to be moving from an acute to a more chronic condition. The percentage returning to work at discharge is shown in Table 36. The average length of absence for those with a short term absence was 9 days, and 88.7% of those with a short term absence at entry were at work at discharge. The average absence for those with a long term absence was 180.8 calendar days (approximately 6 months), and 78.3% of these cases were at work at discharge.

Table 36: Work status at discharge for those absent at entry

	Discharge		N	Average length of absence (days)
	At work (%)	Absent (%)		
Short absence (1-30 calendar days)	88.7	11.3	106	9.1
Long absence (>31 calendar days)	78.3	21.7	60	180.8

3.8.7 Clients' view of health resolution at discharge

On discharge, cases were asked whether they thought their primary presenting issue was resolved (Table 37). Altogether, 83% of cases thought their health condition was resolved, either fully (40%) or partially (43%). When considering this outcome by primary presenting issue, the results were similar for both MSDs and CMHPs. With other health conditions slightly fewer cases (69%) thought their health condition was resolved, while 22% did not. This may be due to these conditions being more complex and chronic in nature; the support the service

provided may not have resolved their health condition, but may have helped them to work with it (see Section 3.7.8).

Table 37. Clients' view of whether their health condition was resolved at discharge (N=776)

	MSD	CMHP	Other	Whole sample
Yes – Fully (%)	41.7	41.4	22.4	40.3
Yes – Partially (%)	42.6	41.4	46.9	42.8
No (%)	13.5	11.4	22.4	14.1
Don't know (%)	2.1	5.7	8.2	2.8
<i>N</i>	657	70	49	776
<i>Missing</i>	167	32	28	265

3.8.8 Subjective view of effectiveness

Cases were asked whether they thought the programme had helped them to stay in work or return to work (Table 38). Altogether, 88.1% of those with MSDs thought that it had, with slightly lower percentages for those with common mental health problems and other health problems. Only 6% of the whole sample thought that the programme had not helped them to stay in work or return to work.

Table 38. Clients' view of whether programme helped them stay in work or return to work (N=744)

	MSD	CMHP	Other	Whole sample
Yes (%)	88.1	76.8	81.4	86.7
No (%)	5.9	7.3	4.6	6.0
Don't know (%)	6.0	15.9	14.0	7.4
<i>N</i>	632	69	43	744
<i>Missing</i>	192	33	34	297

3.8.9 Number of GP visits during programme

In order to identify whether there was an apparent reduction in the number of GP visits for clients involved in the programme, those who were in the programme for between 70 and 110 days (i.e. three months +/- 20 days) were identified (N=210). The average number of GP visits this group had made in the three months prior to entering the programme was 1.9. During their time in the programme they made an average of 0.8 GP visits. If considering the clients who were in the programme for between 60 and 120 days, on average they attended 1.9 GP appointments before entry and 0.9 during the programme (N=308). It appears that there is a reduction in the number of GP visits by an average of approximately 1 appointment per case, over a comparable period, when cases are receiving support from the WHS programmes.

3.9 Post intervention follow-up

Cases were contacted three and six months after discharge and asked to complete the EQ-5D and provide their absence status. This was to identify whether the health improvements seen at discharge were maintained following discharge from the programme.

3.9.1 Three month follow-up absence status

Altogether 389 clients provided information on their absence status 3 and 6 months post-intervention. Their absence status is shown in Table 39 (3 month) and Table 40 (6 months). Of those who had been at work at entry, 92.3% were at work 3 months after their discharge from the programme, and a similar percentage (94.2%) were at work 6 months post discharge. Of those who had been absent at entry, 76.0% were at work 3 months after discharge, and 85.5% were at work 6 months after discharge.

Table 39. Cases' absence status at three months post-intervention

		Absence status at 3 month follow-up				
		At work (%)	Absent due to PPI* (%)	Absent for other reason (%)	Absent, reason not given (%)	No longer employed (%)
Entry	At work (N=285)	92.3	0.4	1.4	1.0	4.9
	Absent (N=104)	76.0	6.7	3.8	1.9	11.5

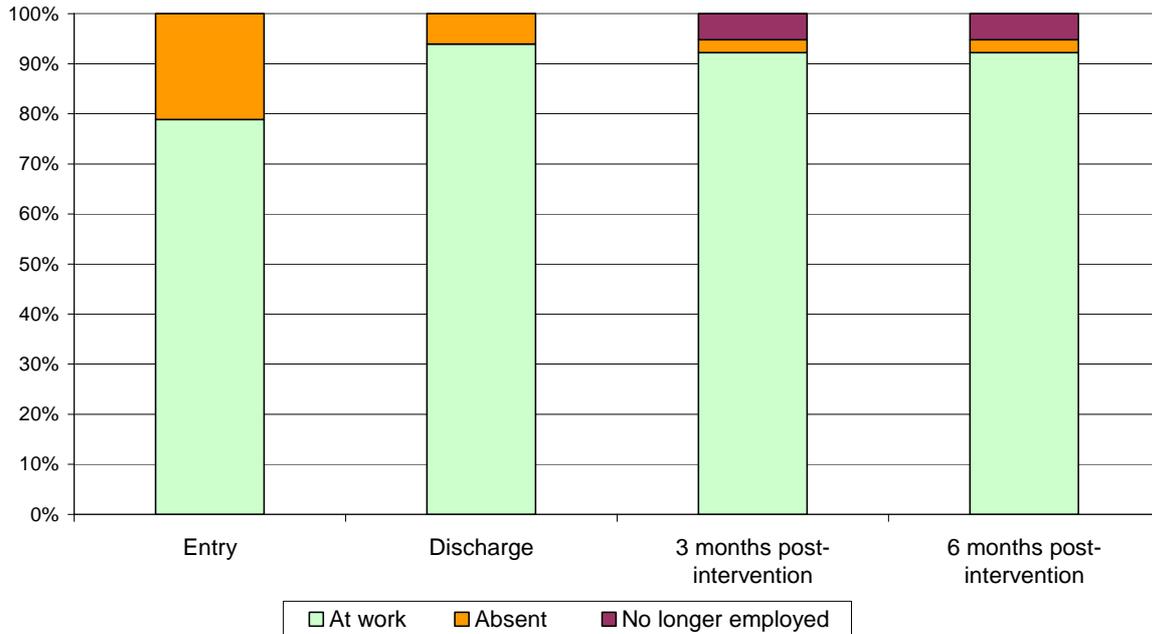
Table 40. Cases' absence status at six months post-intervention

		Absence status at 6 month follow-up			
		At work (%)	Absent due to PPI* (%)	Absent for other reason (%)	No longer employed (%)
Entry	At work (N=224)	94.2	0.4	0.9	4.5
	Absent (N=62)	85.5	4.8	3.2	6.4

*PPI = primary presenting issue i.e. the health problem for which they entered the programme.

Altogether 232 cases reported their absence status at four points: entry, discharge, 3 and 6 months post-discharge. The percentage of these cases who were absent or at work at these points is shown in Figure 8. Of this group, 21.1% were absent at entry, with 6% absent at discharge and 2.6% absent at both 3 and 6 months post-discharge. Only 5 of the cases who were at work at discharge were absent at 3 months post discharge (and 2 of these absences were not for the reason for which they came into the programme), while 12 cases who were absent at discharge were at work 3 and 6 months post-intervention. This implies that those who returned to work remained in work in the 3-6 months following their discharge from the programme.

Figure 8: Percentage of cases at work or absent over time (N=232)

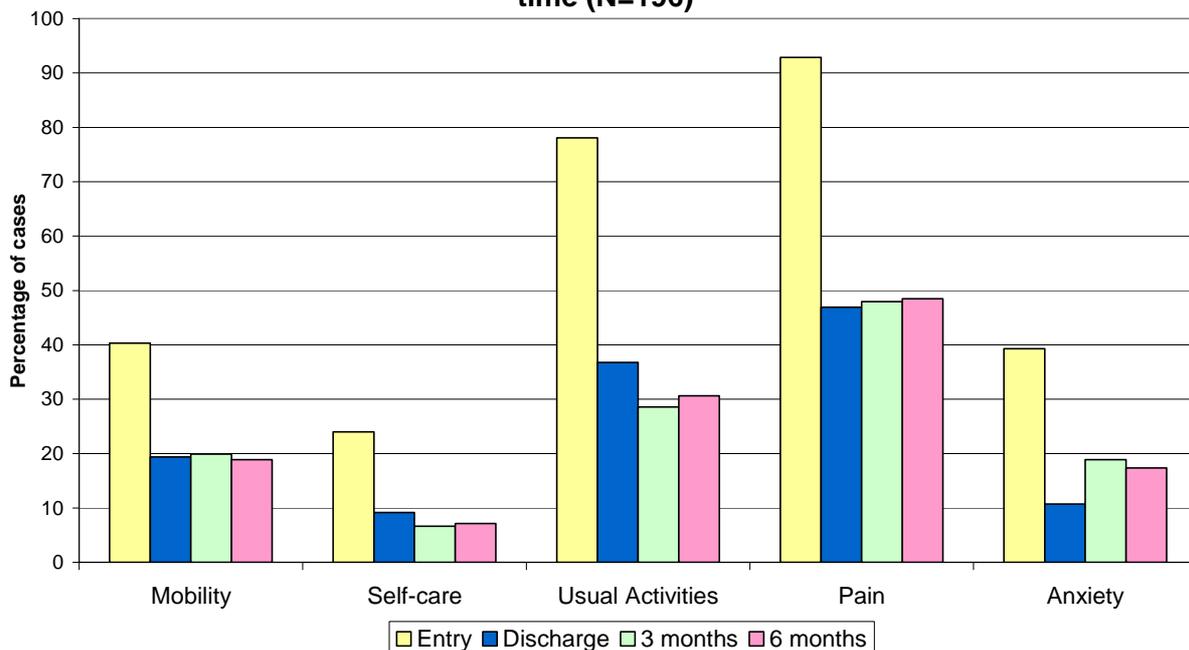


3.9.2 EQ-5D scores at 3 and 6 month follow up

Altogether, 204 cases provided complete EQ-5D scores at entry, discharge, 3 month and 6 month follow up. The percentage of cases that reported some or significant problems for each of the 5 dimensions at these times is shown in Figure 9. This implies that the health improvements seen at discharge are maintained at three and six months following discharge. Caution should be taken when considering these figures, as it is possible that those who experienced deterioration in their health may not have been willing to complete the follow up questions.

The mean VAS scores for this group were 69.8 at entry, 82.0 at discharge, 80.5 at 3 months follow up, and 80.8 at 6 month follow up. There is very little difference in the scores at discharge, 3 and 6 month follow up, which again implies that the health improvements are maintained following discharge.

Figure 9: Percentage of cases with some or significant problems on EQ-5D scores over time (N=196)



3.10 Summary of results

- Client demographics are broadly representative of the Scottish population.
- The most common means of hearing about the services was via GPs.
- The majority of cases referred to the programme with a musculoskeletal condition (80%); 11% presented with a common mental health problem, and 9% presented with another health condition (N=1,177). Note that cases were only able to record one primary presenting issue on entry.
- The average duration of a condition prior to entering the programme was approximately 3 months for those who had a musculoskeletal condition, and more than 2.5 years for those with a common mental health problem or other health condition.
- Cases on average received between 2.8 and 3.9 case management contacts.
- Apart from case management, physiotherapy was the most used clinical service.
- The average number of sessions of physiotherapy varied between areas, from 2.5 to 4.8 per case. The average number of occupational therapy sessions was similar in all three areas, being approximately 2 per case. The average number of psychological therapy sessions varied between 3.3 and 7.1 per case between areas.
- On discharge, noticeable improvements were seen on all EQ-5D dimensions (N=721).
- Mean VAS scores changed from 66 points at entry to 79 points at discharge (N=716), where a higher number indicates better health (subjectively scored out of 100).
- 64% of cases had clinically important improvements to their COPM performance scores, and 73% had clinically important improvements to their COPM satisfaction scores (N=636).
- The percentage of cases with clinically significant GHQ12 scores had reduced from 64% at entry to 29% at discharge (N=87).
- 53% of case who had been taking medication for their condition when they entered the programme were no longer taking medication when discharged (N=450).
- 95% of cases who were at work at entry to the programme were also at work at discharge (N=532).
- 83% of cases who were absent at entry to the programme, were at work when discharged from the programme (N=189).
- 78% of cases who had been absent for more than 30 days at the point they entered the programme (average absence = 180 days) were at work when discharged from the programme (N=60).
- 88% of cases thought that their primary health condition with which they had entered the programme was fully or partially resolved (N=776).
- 87% of cases thought that the programme had helped them stay in work or return to work (N=744).
- The number of GP visits for the primary presenting issue is lower (by approximately 1 visit per case) while in the programme, compared to the 3 months prior to coming into the programme (N=210).
- The health improvements that cases display on discharge (as measured using EQ-5D) are largely maintained 3 and 6 months following discharge.
- The majority of those who had returned to work on discharge were still at work 3 and 6 months following their discharge.

4. COSTS

4.1 Introduction

In order to help evaluate the service, the costs associated with service delivery, and the potential for costs avoided through prevention of absence were estimated. Caution should be taken when interpreting the costs associated with the potential prevention of absence, due to the assumptions that underlie these estimates.

4.2 Staff costs

The staffing costs of delivering the service are estimated in Tables 39 – 41, based on the staff members' job function, how long they were worked in the programme, the whole time equivalent status (WTE), and salary band. Where staff were employed (i.e. paid a salary), but were not available to undertake work on the project (e.g. sick leave or maternity leave), the costs associated with this have not been included.

Salary costs are based on the mid point in the NHS salary banding range (April 2010 figures)⁴.

Table 39: Staffing costs in WHS Borders (12 months)

	No. of months	WTE	Band	Annual salary (£)	Cost (£)
Project manager	12	0.5	7	35 184	17 592
Physiotherapist	12	1	6	29 464	29 464
Occupational therapist	12	0.5	6	29 464	1 4732
Psychological therapist	12	0.8	7	35 184	2 8147
Administrator	12	0.5	3	17 118	8559
Marketing assistant	6	0.5	4	19 933	4 983
Total					103 477

Table 40: Staffing costs in WHS Dundee (24 months)

	No. of months	WTE	Band	Annual salary (£)	Cost (£)
Project manager	16	1	7	35 184	46 912
Physiotherapist	12	1	7	35 184	35 184
Physiotherapist	9	1	8a	42 030	31 522
Physiotherapist	12	1	6	29 464	29 464
Occupational therapist	24	0.6	7	35 184	42 221
Counsellor	24	1	7	35 184	70 368
Case manager	18	1	6	29 464	44 196
Case manager	6	1	5	24 008	12 004
Administrator	24	1	3	17 118	34 236
Marketing consultant					2 017
OHN (provided for 21 months, at a fixed cost)					8 781
Total					356 905

⁴ <http://www.nhscareers.nhs.uk/details/Default.aspx?Id=766>

Table 41: Staffing costs in WHS Lothian (12 months)

	No. of months	WTE	Band	Annual salary (£)	Cost (£)
Project manager	12	1	7	35 184	35 184
Physiotherapist	12	1	6	29 464	29 464
Occupational therapist	12	1	6	29 464	29 464
Counsellor	9	0.5	6	29 464	11 049
Case manager	3	1	6	29 464	7 366
Case manager	4	0.5	6	29 464	4 911
Administrator	6	1	3	17 118	8 559
Total					125 997

The total salary costs for staff for the three programmes for a total of 48 months is therefore £586,379. This does not include payments for maternity leave and sick leave. Accommodation costs, travel/ subsistence costs, training costs, and cost of marketing materials and other project costs not included.

Allowing 24% of salary costs for pension and National Insurance, takes the staffing costs to £727,110 for this time period.

Altogether 1,041 cases were discharged within this period, with a further 206 still active in the programme. The staffing cost per completed (i.e. discharged) case is therefore estimated to be £698.

4.3 Client absences

Average absence figures for the cases' primary presenting issues can be compared against HSE figures from the Labour Force Survey (2008/09) which gives average durations of absence for those with work related health problems, based on a survey of 100,000 people.

In order to do this, the primary presenting issue of cases was reviewed, with other available information (clinician notes on the database), to ensure that the self reported primary presenting issue reflected the condition as diagnosed by the clinician. Limited data were available for this, but where it existed, clinician comments were largely consistent with the recorded primary presenting issue. There were a small number of cases where a musculoskeletal condition was reclassified (e.g. from lower limb to back), and a very small number of cases where a diagnosis changed from musculoskeletal to common mental health problem, and vice versa (9 in total).

Discharged cases whose health condition was affecting them at work, and who said that the programme helped them stay in work or return to work were asked to say how many working days absence they had experienced while in the programme. If data were missing on a case's absence status while in the programme, they were excluded from this analysis. If cases were absent when they entered the programme, information was also available on when this absence started. In order to establish a comparable time period (1 year) for comparison against HSE figures (drawn from the Labour Force Survey 2008/09), the discharge date was compared against the entry date. If a case was in the programme for less than a year, but absent at entry, the amount of absence in the 12 month period prior to their discharge from the programme was considered, i.e. if they had become absent on 1.11.08, come into the programme on 1.3.09, and been discharged on 31.12.09, the amount of absence from 1.1.09 to 31.12.09 was calculated. For cases who had been at work at entry, the amount of time absent while in the programme was calculated. If a case was in the programme for more than a year and reported having lost more than 245 working days during their time in the programme, the duration of intervening absence was set at 245 days (typical number of working days within a year, based on HSE

analysis). From this an average number of days lost per case can be calculated by health condition. This was converted into the full-day equivalent (i.e. taking account of those working part time), to allow comparison with HSE figures. Since HSE figures don't include hours of overtime worked, if a case reported working more than 48 hours per week (maximum required under the Working Time Regulations (1998), this was adjusted to 48 hours per week in order to calculate their full-day equivalent lost working days. The results are shown in Table 42, and are based on data for 499 cases; HSE figures for the average number of days absence are shown in the final column for comparison.

For comparison, data from the parallel study delivered for NHS staff, OHSxtra (Hanson *et al*, in press), is also included in Table 42. However, note that it was not possible to convert the working days lost to a full-day equivalent for OHSxtra; it is thought that the figure for average number of days absence per case would be lower if this calculation were possible, as most NHS staff work fewer than the average 40.6 hours per week taken in the HSE calculations⁵ (e.g. Hanson *et al* 2007). OHSxtra broadly adopted the same approach of providing case management and provision of therapeutic services for NHS staff with work-related health problems.

Table 42: The average number of days absence for WHS and OHSxtra cases whose condition was affecting them at work and who said that the programme helped them remain / return to work, compared with HSE figures

	WHS cases		OHSxtra cases		HSE figures for average number of days absence*
	Number of cases	Average number of days absence per case	Number of cases	Average number of days absence per case	
MSD – upper limb and neck	218	7.9	950	8.5	17.5
MSD – lower limb	137	14.9	503	8.4	20.8
MSD – back	147	15.9	762	8.1	15.5
MSD – unspecified	4	43.2	n/a	n/a	17.2
Common mental health problems	51	29.8	274	22.0	27.5
Other health conditions	20	59.8	40	27.9	n/a

* From: <http://www.hse.gov.uk/statistics/lfs/0809/typesex3.htm>

Table 42 implies that WHS cases with musculoskeletal conditions affecting their upper limbs and neck and lower limbs took fewer than the average number of days absence when compared with HSE figures. Those with musculoskeletal conditions affecting the back took slightly more. The sample size for those with an unspecified musculoskeletal condition is very small, and no strong conclusions should be drawn from this. Those with common mental health problems took slightly longer than the comparable periods of absence from HSE data, although this is based on a relatively small sample size, and the finding should therefore be interpreted with care. Comparable figures for OHSxtra cases, which are based on a larger sample size, show shorter durations of absence for all health conditions compared to HSE average absence

⁵ <http://www.hse.gov.uk/statistics/lfs/calculation.htm>

figures. The reasons for differences between WHS and OHSxtra are not clear, but may be due to reporting differences (the duration of absences prior to entry to the programme was missing for 113 OHSxtra cases, which may slightly lower the average number of days absence). However, it appears that in general, similar or shorter absences have been taken by clients going through these programmes than those reported by HSE for average absence durations.

4.4 Control group

Efforts were made to establish a control group in order to allow a formal cost benefit analysis. It had been intended that data would be collected on those who contacted the service but were not eligible to receive services (those working for non-SMEs). For operational reasons, it was not possible to obtain this information. WHS Lothian accepted clients that worked for non-SMEs, WHS Borders received very few referrals from non-SMEs, and data were not available from WHS Dundee. For this reason, the information presented can be seen as descriptive, and an estimate of the associated amount of absence is given, compared with the observed amount of absence. However, even with a control group, the operational differences between the three sites would have made it difficult to conduct a comparison between the cases and a control group.

4.5 Waiting times

The projects aimed to deliver rapid access to services. There is strong evidence that early access to services helps reduce absence duration. Although the WHS projects are not directly comparable with NHS services, as the WHS projects provided a vocational rehabilitation service, it is worth noting that the waiting times for physiotherapy services in the WHS projects were significantly shorter than the NHS waiting times for physiotherapy. During the programme these were reported to be 14-16 weeks in NHS Lothian, and 10 days for urgent cases, 8 weeks for semi-urgent cases and 12 weeks for non-urgent cases in NHS Borders.

The waiting times for NHS occupational therapy were not available.

The waiting times for counselling services in the project were also much shorter than the NHS waiting times; they were reported to be over 6 months in NHS Borders during the time of the project. Because NHS counselling services in Dundee and Lothian are delivered through private providers, no waiting time information was available for them.

5. FEEDBACK FROM SERVICE USERS

5.1 Introduction

Comments, testimonials and case studies were obtained in order to illustrate the impact of the service on those who had experience of it, as clients, employers, GPs and other allied health professionals who may have had contact with the service through their clients.

5.2 Client comments

WHS Borders routinely asked clients for comments on their service, at discharge. Comments were also sought from clients in the other areas. Comments received were overwhelmingly positive, with a sample of given here. Comments are from WHS Borders clients, unless otherwise stated.

5.2.1 Quality of the service

- “Fantastic service. Really helped getting advice and support so quickly.”
- “Extremely useful; enabled me to develop strategies and see how these work so my future working life may be improved. Very grateful.”
- “Very fast and useful. The services used helped to boost my confidence levels again.”
- “Very helpful overall, exercises helping.”
- “Very happy with informative and professional help.”
- “Very professional, friendly and efficient.”
- “Fantastic service. Very good.”
- “Good quick service. Very helpful. Health issue now resolved.”
- “I was impressed by the support I received from different professionals within your service which meets the individual need of a person like myself. You all took time to assess my need and what was appropriate for both my employer and me. I feel that you were all very pleasant and made me feel that you all wished to support me in my return to work.” - *WHS Lothian client*

5.2.2 Impact on their ability to do their work

- “I fully appreciate the service which helped me remain working due to the prompt initial appointment and no waiting time.”
- “I am delighted with the service. I can now go about my work duties with a lot more ease and have learned so much from my therapist about postures and managing my condition at work.”
- “The support I received from this service helped me manage my back problem and return to my work.”
- “Could not have done my job without this service. Everything was excellent.”
- “I have found the service very helpful indeed, it has helped me view various areas of my working life in a different way, leading to a much more positive outlook and assertive manner, and has not only helped me at the present but will arm me for any further challenge in the future. Thank you.”
- “If it wasn’t for this service I don’t know what would have happened. You have helped me more than words could say. Thank you.”
- “I found physiotherapy very helpful for my shoulder problem. I think I would have had to have time off work without it.”

- “The service I received was first class. The exercises have helped me to remain at work.”
- “I was heading for time off work due to my neck pain but this service prevented that. I’m 100% better, it’s excellent.”
- “Easier to do my work now I’ve been here.”
- “All was of extreme help. Assertiveness work helped me so much and talking out problems that were stressors to me, helped immensely. I feel much happier now. Life is better.”
- “I know that I was able to stay in my role because of your support. I would probably have walked away otherwise. Thanks again”

5.2.3 Holistic nature of the service

- “Fantastic service, I have been really impressed with the staff and the holistic approach taken. I am very grateful for all the assistance I have received.”

A more detailed discussion was held with a small number of clients about their experience of the service.

“What impressed me most was the holistic approach taken by the project. I went with extremely bad sciatica – I could hardly move. I was referred for a physiotherapy appointment at Borders General Hospital where the wait was likely to be 10 weeks. However, they identified that I was suitable for the Working Health Services project and I received a physiotherapy appointment the next day with them.

“The physio was very supportive, and gave me exercises to do and a tens machine. After a few weeks she offered me acupuncture; this really helped me to turn the corner with the sciatica and it was the breakthrough in my recovery. After that the OT came to my workplace where she did an assessment. She was very discrete and handled it well without making me feel awkward in front of my colleagues. She gave me advice on sitting and recommended a desk stand. She spoke with my manager about what was needed – the advice was not radical, nor did it require expensive equipment. My company was able to provide what was required.

“Following this I saw the psychological therapist who helped me address some personal issues around stress, confidence and sleep. This was also very helpful. The team were all very approachable and supportive.

“The approach was really holistic and turned my life around. They got to the root causes of my health problems, rather than just fixing the effects. I was so impressed that I was seen straight away. It was enormously helpful and I’m just so grateful to them for it.”
 - *WHS Borders client*

A second client reported:

“The project helped me a lot. I didn’t think it would to start off with, but it did. I now understand my health problem better and know what to do to manage it. It took some time, but I would say it has brought me back to normal. I was off work when I went into the project, but I’m back now and happy to be so. I’m now more confident. It was really helpful having someone else to talk to, so I didn’t have to burden my family with my problems. The support I received definitely helped me.”
 - *WHS Borders client*

5.3 Client case studies

Jane, 37, owns her own hair salon. After suffering from a bad fall, she found that she was struggling physically with her job due to whiplash in her neck, damage to her legs and severe headaches.

Jane said: "Before the fall I had had a number of tests to find out why I was getting headaches. After falling, the headaches got a lot worse and I found out that I had a disease in the brain which could leave me paralysed at any moment.

"I had to have a couple of operations and was in intensive care. I felt very ill and very scared and didn't leave the house for three months after I got home. My job as a hairdresser involved a lot of socialising with customers and it was awful not being able to do what I loved.

"When I started to feel better I tried to go to work but I couldn't do anything. My GP put me in contact with Working Health Services Dundee where I was offered the support I needed and now I feel so much better.

"The support I have received has been great. Over the last few months I have seen a physiotherapist, occupational therapist and a counsellor. Each of them has been really understanding and they have helped me go from thinking I couldn't do anything to getting back on track.

"My occupational therapist for example provided me with a great rehabilitation regime which got me excited about getting back to work and my counsellor allowed me to talk to someone when I was at my lowest point.

"It has been my physiotherapy that has helped me the most though. Before the treatment, I couldn't even lift my arms without being in severe pain, but now eighteen months on and I am able to go into work two or three times a week and look after the reception area and do the paper work.

"The next step is getting back to cutting hair as my work is very important to me. I will keep trying to push through, but there is no doubt that without the help and support of Working Health Services I would not be in the position I am in today."

WHS Dundee client

Jack is a mechanic who works for a small sized company. Jack developed tennis elbow on his right side due to work activities. His GP prescribed pain killers which initially helped Jack. He continued to work in pain for almost 6 months until the pain became so bad that he had to go off sick in October 2009. Jack started losing confidence and was becoming low in mood because of taking time off work.

Jack was referred to Working Health Services Lothian by his GP in February 2010. During his initial interview the case manager identified Jack's low mood and elbow pain and referred him to the project's counsellor and physiotherapist. The case manager also referred Jack to Community Help Advice Initiative (CHAI) for benefits advice, since he was now only receiving sick pay. With the input from the physiotherapist Jack's pain improved and sessions with the counsellor helped improve his mood and confidence. CHAI helped him to receive short term benefits to deal with his expenses.

After one month Jack was seen by the project's occupational therapist to look into his phased return to work. The occupational therapist completed a job analysis and a job site visit along with the physiotherapist. During the work visit, the possible accommodations and adaptations

were discussed with the employer and a phased return to work plan was developed to suit both the employer and Jack.

Jack started his phased return to work in modified duties at the end of March and the case manager kept in touch with him during his phased return. Jack resumed his full duties at the beginning of May. His employer said, "I am impressed with the professionalism of Working Health Services Lothian; they maintained just the right balance between our company needs and Jack's health which helped us to use Jack's expertise without risking his health."

WHS Lothian client

Michael was working as a heating engineer in a medium sized company when he had a motorbike accident, which left him with a broken left knee and left femur and paralysis of his left arm. He underwent surgery and physiotherapy over the following six months but was struggling to return to his former work role.

Michael's physiotherapist referred him to Working Health Service Lothian for more specific work capability input. He was reviewed by the team's occupational therapist to identify what his individual work capabilities were.

The case manager liaised closely with Michael's line manager and negotiated redeploying him to an alternative role which would enable him to use his existing knowledge and skills and accommodate his physical abilities. During this discussion it was agreed that a gradual return to work would enable Michael to build his stamina and integrate into the team. The return to work plan covered a four to eight week period including regular reviews and allowed flexibility for his progress and any medical appointments he needed to attend. Michael returned to work in his new role just a month after his referral to Working Health Services Lothian.

The project team also recommended an Access to Work referral to help with the funding for adaptive work equipment and secured assistance with travel as he was unable to drive to work or manage buses. His case manager maintained regular contact throughout the process and Michael is now an established member of the helpdesk team. His line manager said: "His determination and positive approach are commendable. We are very pleased to have him back among us and will continue to support him in sustaining his new role with the company."

WHS Lothian client

Kelly was a farm worker, whose boss suggested she contacted the WHS Borders team as she was feeling depressed and struggling to manage her diabetes. An initial assessment with the occupational therapist identified that she was finding it hard to cope with her work duties, socialising and managing her finances. The OT encouraged her to improve her mood and physical fitness by restarting her hobby of walking regularly, and using relaxation techniques. She also discussed work with Kelly and offered to help her speak with her boss about going back to work part time, until her health had improved.

Kelly agreed that she would contact the Citizens' Advice Bureau for help with dealing with her debts. She tried to call, but felt too low to do this. When this was discussed at her next meeting with the OT, she was referred to the project's psychological therapist for additional support. Kelly met the psychological therapist weekly for 9 weeks, who helped her look at things in a more rational, balanced way, and encouraged her to engage in activities she enjoyed (socialising, walking, craft work) to distract her from her worries and improve her mood.

Kelly made good progress, but then injured her knee and found she was relying more and more on painkillers. She was referred to the team's physiotherapist, who gave her advice and exercises to help her reduce the discomfort. As a result, her pain quickly settled and she was

able to return to walking and driving without requiring painkillers.

Around the same time, Kelly started to have doubts about returning to her old job on a farm. The OT helped Kelly to identify what she wanted from a job and consider other career options. The psychological therapist used anxiety management techniques to help her cope with planning a return to work, after being off sick for two months. Kelly made good progress, and realised that she did want to go back to farm work. She also realised that she was financially better off working, and work gave structure to her day and made her feel better. Kelly had a return to work meeting with her boss, and using her newly developed assertiveness skills, she was able to negotiate part-time hours in a role that would ease her back into working on the farm. The OT kept in touch with Kelly during her first month back at work to check that everything was going OK. Kelly is now also able to enjoy walking and socialising with friends, and has managed to sort out her debt issues.

WHS Borders client

Angela, 47, works as a Play Group Leader and Out of School Club Worker at a community centre in Dundee. After increasing her hours, she found that she was struggling physically and emotionally with the job. A visit to her GP resulted in her being referred to Working Health Services Dundee and four months later she is still in work.

Angela explained: "I had been on Incapacity Benefit for about five years before I went back to work about a year and a half ago. I now work at a local community centre where I am playgroup leader and also work with the after-school club. I love my job but after increasing my hours, I started to feel like I had bitten off more than I could chew. My job involves a lot of standing and lifting things and this was giving me back pain and I was also having problems with fatigue.

"The support I received has been great. In the past few months I have had seen a physiotherapist, occupational therapist and a counsellor. Each of them has helped me with different issues and this has all come together to make my workplace better for my health. For example the occupational therapist came into work with me and watched all the things I was doing to see if there was anything I could be doing differently to take the pressure off my back. Meanwhile the physiotherapist was able to show me exercises to do to help ease the pain and the counsellor supported me with a few personal problems.

"My job is really rewarding so I didn't want to have to give it up. Working with young kids is always going to be hard work but the difference is that I now have someone on my side who knows how certain aspects of the job can affect your health and that makes it easier to put changes in place."

WHS Dundee client

John worked for a construction company. He found it a stressful working environment as lots of changes and redundancies were being made. John often lost his temper at work and became very angry and impatient towards his bosses and the people he managed. He felt that people took advantage of him and that the only way he could get them to listen to him was to be aggressive. As a result his relationship with colleagues was beginning to suffer and they would avoid working with him where possible.

His line manager decided that if John was unable to manage his anger, the company would have to let him go. After talking it through with him, he encouraged John to refer himself to Working Health Services Borders for support in dealing with his anger.

John telephoned Working Health Services Borders and an appointment was made for him to see the psychological therapist. They met 6 times on a weekly basis and explored the issues

behind his anger. They also focussed on more appropriate ways to manage and express John's frustrations, using relaxation techniques to help him calm down in stressful situations and assertiveness skills to help him communicate his feelings. John made good progress, generally felt more relaxed and was able to control his anger both at work and at home. His relationships with colleagues improved and he was able to talk to his bosses about difficulties he was having at work and how they could resolve them together. His line manager also noticed that he was managing his anger more appropriately which further increased John's confidence.

WHS Borders client

5.4 Employers' views

Views were sought from employers whose employees had received support through the service. In one case the views of both an employee and employer were given:

"The OT has been brilliant, very supportive. She came to the factory to see where I worked. She communicated well with my employer and helped them design a suitable job for me, and recommended the right equipment to help me with my work. Everything she recommended has been done. It has definitely helped me to get back to work."

WHS Borders client

This client's employer said:

"Our employee who used the service has been with us for 25 years. We have a loyal workforce, and value our employees, so really wanted to keep a job for him. The modifications we've made for him haven't cost us a lot, and we've been able to do them (e.g. modifying a toilet to make it wheelchair accessible). Access to Work funding helped with some equipment. We're pleased with how it has worked, and it helps to show other staff that we're a caring employer. This has been our first experience of the project but it seems to have worked. I think they have done pretty well."

Personnel Manager at a medium sized employer (tool making), WHS Borders

An employer in the WHS Dundee area said:

"Working Health Services is a great programme. It's been of real benefit to our employees; a fair number of our staff have now attended the service and I am in no doubt that without it, quite a few may have had to go off work.

"Ensuring that our staff are happy and healthy is essential to the ongoing productivity of the company, and it's equally vital for workers to know that we are committed to providing support to help resolve any work-related physical or mental health problems as quickly as possible.

"One of the primary benefits of Working Health Services is that it helps to create and sustain a positive, healthy workforce. Helping staff stay in work is hugely beneficial for both employees and employers, and Working Health Services has helped us achieve that."

Group health and safety advisor, at an insurance broker employing 160 staff (with 90 located in the eligible geographic area), WHS Dundee

A second employer in the WHS Dundee area commented:

"The firm is a legal services and estate agency firm with our Head Office in Dundee, and offices in the Angus/Tayside and Edinburgh. The firm first became aware of the Working Health Services project approximately 2 years ago via contact with Healthy Working Lives. Since being put in contact with WHS, we have developed a very strong working relationship with the team and have been hugely impressed with their positive, proactive and practical approach across a vast range of issues. They have provided advice on workstation

requirements, particular medical issues which were impacting on employees' ability to attend work, and ongoing practical advice for the firm in support measures which, when implemented, would provide additional assistance to our employees. The responses of our employees who have accessed the service are always overwhelmingly positive with unprompted praise heaped upon the helpful and practical support they receive when contacting the project team. In particular, where one employee was despairing due to an ongoing ailment which was affecting her ability to attend work, she contacted the helpline, was dealt with promptly and efficiently and was greatly impressed and relieved to receive an appointment with a physiotherapist within a week. She had been anticipating a wait of a number of weeks to see someone for treatment via normal routes. As a result of the treatment she received from the project, she rapidly returned to work.

"The firm have really benefited from developing their relationship with the project and hope to continue working with the project team in the future."

Director of Office Services at a medium sized employer, WHS Dundee

An employer in the WHS Lothian area said:

"Great service that can offer specific health advice to employers." *Employer, WHS Lothian*

5.5 GPs' views

GPs typically are relatively limited in what they are able to offer their patients in the area of vocational rehabilitation, and where feedback was received concerning the projects, it reflected this improved level of service for patients. Positive comments were received from GPs concerning the benefit of the service, as shown below.

GP1 "I saw one of my patients this afternoon who was absolutely delighted with the service she has received. She found the receptionist extremely helpful and sympathetic and received a very quick appointment for physiotherapy which has made a tremendous difference to her sciatica. She has been off work but should be fit to return after the festive holiday. Thanks for a first-rate service."
GP (NHS Borders)

GP2 "The service provides more rapid access to physiotherapy, and a more patient focused approach, which is flexible and oriented to the needs of the patient; this is beneficial for patients.

"Another aspect that is really good is the occupational therapy input into the workplace, especially in small businesses that don't have their own occupational health provision. Patients can feel intimidated in requesting alterations to their workplace, but the OT is able to provide unbiased advice. It's helpful that the OT is a third party outside the organisation when discussing these needs with the employer – it means the patient / employee doesn't have to make demands of the employer, which some can find very challenging.

"I think it is excellent for small and medium sized enterprises to have this facility. The Fit Note has allowed patients to be signed as fit for work with amended duties, but employers don't always know how to accommodate this. The OT has been able to provide that support, giving appropriate advice to employers. This is something that wouldn't otherwise be available on the NHS, and I think it is crucial as lack of workplace adaptations can be a significant barrier in signing someone back to work.

"I have seen the project's success with some of my patients who have benefitted from the OT's workplace visit and advice. For example, I had a patient who was referred to the service with back pain (receiving physiotherapy and an OT workplace visit) and got back

to work quickly – it was a great benefit and the patient has had no more problems in this area. The feedback from patients has been very, very good.

“The project is easy to refer into and I am very favourably disposed towards it. It is hard to see how you couldn't be!”

GP (NHS Borders)

GP3 “The Working Health Services project offers access to a specialist workplace team of health professionals who offer a range of services such as physiotherapy, occupational therapy and psychological services.

“As a GP, I am somewhat limited in the resources that I can offer my patients within these particular areas. However, Working Health Services provide patients with access to local specialist advice, support and treatment.

“This service helps me greatly with my job as I can direct patients with workplace health issues to expert treatment and resources which can give them the help they need. Patients are supported through a step-by-step process to deal with their physical or mental health problems. The individual is given the power to deal with their issues at a pace which suits them. This flexibility, coupled with the support and advice available from the service's team of health professionals, makes Working Health Services an invaluable resource which I would thoroughly recommend to anyone who requires it.”

GP (NHS Tayside)

GP4 “A great one-stop shop for GPs to use for work problems for our patients.”

GP (NHS Lothian)

5.6 AHP / Partnerships comments

Comments were sought from other health professionals who had contact with the service, through referring clients.

“The project is very beneficial to clients; providing rapid access to services is very good. The project provides appropriate services and the vocational element, where they have negotiated with employers for a positive outcome for clients, is very good. Where clients have needed to be seen quickly the service has accommodated this so that it has been timely for the clients.

“I've worked jointly with the OT from the Working Health Service project for some clients (e.g. we've done joint assessments), and that has worked well. The psychological support provided by the project is good, and extends the service. I've referred clients to the service and this has freed me to work with other NHS clients where vocational issues are not the primary concern. We promote the service where appropriate, because we think it's good. There are a number of vocational services in the area, but Working Health Services is the one that I have the most faith in. I have found it to be incredibly good.”

Occupational Therapist, Community Mental Health Team, NHS Borders

6. DISCUSSION

6.1 Clients

It must be recognised with a study of this type (self referral), that those choosing to engage with the programme not being representative of those who do not (i.e. there may be many in the employment who would benefit from the service, but have not referred in to it, for a variety of reasons). However, the clients appear to be broadly representative of the geographic areas from which they are drawn in terms of gender, age, ethnicity and SIMD. They may be earning slightly less than the average for the areas from which they are drawn. It therefore appears inequity of access to the service based on social indicators did not occur.

The majority of clients referred for the projects had their primary presenting issue recorded as a musculoskeletal disorder (79.7%), with only 11.2% having a common mental health problem or other health condition (9.1%). This can be compared with data from HSE on self-reported work-related ill health suffered by people who had worked in the last 12 months which indicate that 1.26 million people are affected (HSE, 2008). Of these, 539,000 (39.6%) are musculoskeletal conditions, and 442,000 (35.1%) are due to stress, depression or anxiety.

Clearly, the cases entering the programme do not reflect this national trend. This may be for a number of reasons. Firstly, clients were actively recruited from the NHS physiotherapy waiting lists in all three areas (i.e. clients with a musculoskeletal disorder), whereas this happened to a much lesser extent for the mental health related waiting lists (only the psychological services waiting list in NHS Borders was used for client recruitment).

Secondly, the database only allowed one primary presenting issue to be recorded; it is possible that clients may have had more than one condition when they entered the programme, and may have been more willing to report a musculoskeletal condition than a mental health related issue. However, where clinicians had recorded information on the database about a case's diagnosis this was compared to the primary presenting issue recorded; from this it is not thought that there was significant incorrect recording of cases' primary presenting issue.

Thirdly, it could be that those with common mental health problems may be less willingness to report these problems, or seek help for them; there could also have been a lack of understanding of what WHS could offer in relation to these conditions.

Clearly however (HSE, 2008), common mental health problems are common in the workplace; a service such as this should seek more actively to promote its services to such cases.

6.2 Scope of service delivered

6.2.1 *Relationship with NHS services*

It was not intended that the WHS project would replace existing NHS services. However, not all services asked whether the condition was having an impact on the clients' ability to undertake their work as an entry criterion, and 10% of cases reported that their health condition was not affecting their ability to work. These cases may be appropriately supported through NHS services. To make best use of the occupationally focussed skills of the project teams, it thought that it would be appropriate to ensure the service is delivered to those whose health condition is having an impact on their ability to work, and that this should be established as an entry criterion.

6.2.2 *Case management*

The extent of case management provided (i.e. the number of contacts) will depend on the needs of the cases. Differences were seen between the areas in terms of the average number of contacts made by the case manager, which reflected whether this function was undertaken by a dedicated case manager (more contacts) or was integrated into clinical roles (fewer contacts).

The project was not set up to compare the effectiveness of these approaches, and this amount of contact may be clinically appropriate.

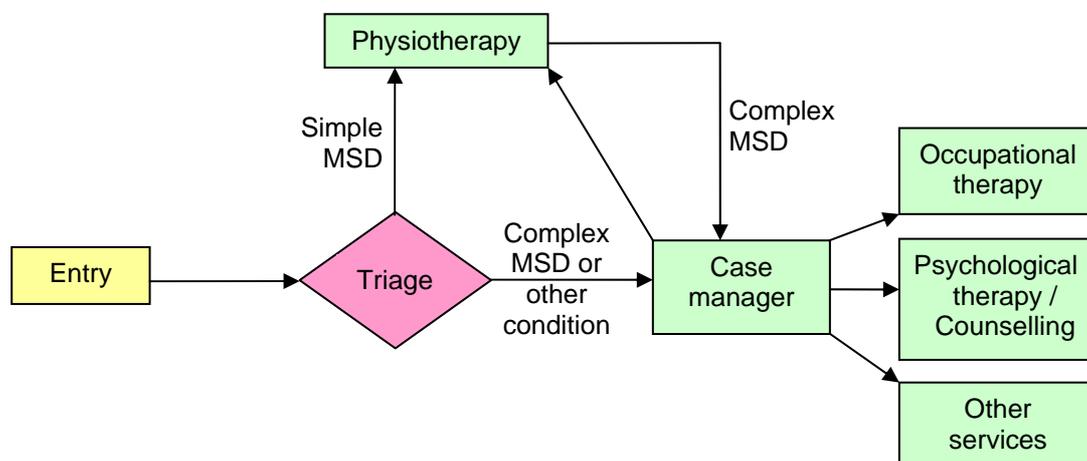
However, some who enter the programme with a simple musculoskeletal condition may not require extensive case management. A relatively high proportion (70%) of WHS Borders cases who received physiotherapy had only two case management sessions, which were the entry and discharge assessments. This implies that these cases did not require active case management, where further support from the case manager is likely to have been provided.

To make best use of the case management function, it may be advantageous to identify the cases that do not require case management, and refer them directly to a therapist. This may be particularly appropriate for cases with simple musculoskeletal disorders, where straightforward triage criteria could be established, and could be administered at the enrolment assessment. Triage criteria used in a comparable project (OHSxtra) to identify complex musculoskeletal conditions (which would require case management) were:

- Clients who presented with a musculoskeletal disorder of longer than 12 weeks, especially where one or more of the following was indicated:
 - i. Recurring problem
 - ii. Absent from work
 - iii. Repeated absence from work

Simple musculoskeletal conditions not meeting these criteria could be referred directly to a physiotherapist, while complex cases could be referred to a case manager for fuller work-related assessment. There would be opportunity for the physiotherapist to refer more complex cases to the case manager for further support, if this need became apparent. Access to other therapies would be via the case manager, with their support and review. This slightly adapted model for service delivery is shown in Figure 10.

Figure 10: Possible routing of clients



Findings from this study can't answer whether case management should be a dedicated function or integrated into clinical roles. However, the broad model for access to services given in Figure 10, allows the case manager to be either a dedicated function or integrated into clinical roles.

In summary, it is therefore suggested that firstly, in order to maximize the potential benefit of the service, the entry criteria need to be clear, specifically, that the clients' condition is affecting their ability to work. Secondly, to ensure efficiency of the case management function, those with a simple musculoskeletal condition who may not require case management could be triaged

directly to a physiotherapist, while those with more complex musculoskeletal conditions or other health conditions are triaged to the case manager.

6.2.3 Clinical team mix

Not surprisingly, due to the high proportion of cases that were referred with musculoskeletal conditions, physiotherapy was the service that was most frequently delivered within the programmes. Some of these cases were received from NHS physiotherapy waiting lists. For two of the three areas (WHS Dundee and WHS Lothian) no other lists were used as a means of recruiting clients to the programme, meaning that this high proportion of musculoskeletal cases does not necessarily reflect the true need of potential cases.

This high relative demand for physiotherapy services, and lower demand for occupational therapy and psychological therapy and counselling services does not imply a reduced need for these clinical services; rather it presents a challenge to ensure that those with other needs are targeted by a programme of this kind. A service of this sort should be actively promoted to support those with common mental health conditions and other health conditions.

6.3 Operational differences

6.3.1 Role of the case manager

As discussed, this project was not designed to test the effectiveness of different approaches to delivering case management (with a dedicated case manager at WHS Dundee, and case management integrated into clinical functions in WHS Borders, and a mixture of the two approaches in WHS Lothian). However, it appears from this study, that where a dedicated case manager is available they have more contact with cases than when a clinician operates as a case manager, probably due to caseload issues.

The view of WHS Lothian, which operated both with a case manager and with the function integrated into clinical roles, was that it was more satisfactory having a dedicated case manager than the therapists providing both therapy and case management, because of conflicting priorities and volume of caseload, without dedicated time for case management. However, they did think that a therapist could be a case manager, if they are able to have time dedicated to the function.

6.3.2 Clinical work

There were differences between the sites in terms of the average number of clinical sessions that were delivered to cases. The project was not set up to evaluate whether the amount of clinical sessions provided was suitable, but it is clear that there are differences between clinicians in terms of approach. Appropriate training, supervision and review may help to ensure that appropriate levels of service are delivered.

6.3.3 Case mix

WHS Borders and WHS Dundee had a relatively similar mix of cases, with the vast majority being those with musculoskeletal conditions. A significant proportion of WHS Lothian's cases had an 'other' health condition, which included cardiac and stroke conditions, with a smaller proportion being musculoskeletal conditions. This is reflected in the greater proportion clients in WHS Lothian receiving occupational therapy support, and the smaller proportion receiving physiotherapy. In all three areas, similar proportions of cases received psychological therapy / counselling.

6.4 Potential effectiveness of the programme

Without a control group it is not possible to say with certainty that the programme was effective or cost effective. However, there are clear indications from a variety of the measures used that the health of cases was improved at discharge compared with entry. These include the EQ-5D

scores, for which the percentage of cases reporting some or significant problems at discharge dropped noticeably compared to entry; and the VAS scale, where the mean score improved by over 14 points from entry to discharge (out of a self-scored scale of 100). The COPM scores also showed improvements, where 64% of cases had a clinically important improvement in their scores. Similarly, the number of cases with clinically significant GHQ-12 scores reduced from 64% at entry to 29% at discharge. The health improvements that cases display on discharge (as measured using EQ-5D) appear to be maintained 3 and 6 months following discharge.

Although there are a variety of reasons why people may change their medication, more than half of the cases who had been taking medication for their condition at entry were not taking it at discharge, with potential cost savings associated. Likewise, the number of GP visits appears to have reduced during the time in the programme, by approximately 1 visit per case. Without a control group it is not possible to attribute either the reduction in medication use or the use of GP services directly to the programme; however, both are encouraging findings.

Most importantly, 83% of cases who were absent from work at entry are at work at discharge; and 95% of cases who were at work at entry were still at work at discharge. Although it is not possible to say how much absence these cases would have had without the involvement of the programme, HSE figures for average durations of absence for these conditions imply that on average more absence would have been expected than was observed in musculoskeletal cases involved with the project. The comparable figures for those with common mental health problems show more absence than the HSE average, but this is based on a small sample and should be interpreted with caution. The figures for absence duration are comparable to those obtained in OHSextra; together they indicate that clients attending these programmes have shorter average absences than might be expected based on HSE figures for average durations of absence for work-related health conditions.

Furthermore, the programme appeared to help those who had been absent for long periods of time (more than 30 days when entering the project) in returning to work, with 78% of these cases doing so. This is a particularly difficult group to return to work, and this finding is encouraging.

Subjective feedback from clients was very positive, with 88% of cases reporting that the primary health condition with which they had entered the programme was fully or partially resolved, and 87% reporting that the programme had helped them stay in work or return to work.

Others who either referred clients into the programme (GPs and AHPs), and employers also responded positively to the programme, seeing the benefits for their patients or members of staff.

6.5 Capacity of service

It appears that the clinical services were not fully utilised during the evaluation period, with their being no significant waiting lists for services. The under-utilisation of clinicians time in clinical work is partly due to them initially spending considerable time in marketing the services. It is possible that services of this type may be more effective if launched following a period of marketing (by non-clinicians), with clinicians in post for the launch. However, it is accepted that it is difficult to actively market a service that is not operational.

Time was also spent by WHS Dundee modelling the service and discussing it with interested parties. Some clinical time was taken up with database-related issues in WHS Lothian; ensuring that the IT systems are in place at the outset would avoid this requirement.

If a greater number of cases attended the programme, the cost of delivering the programme per case would be reduced. It appears that there is capacity within the programmes for this, without this having a negative impact on client waiting times for services.

6.6 Benefits of web based database

Significant operational benefits were experienced by the project teams through having a web-based database for recording data and management of cases. The WHS Lothian project did not have access to this until some time into the project, and this caused difficulties with data management. However, where the database worked, it reduced the amount of paper records, and facilitated communication between project staff. It is thought that there would be potential to develop the web based database further to include aspects such as electronic scheduling of follow-up sessions with clients.

6.7 Lessons learned for successful service delivery

Interviews were held with each of the areas concerning their operation of the programme. Staff were asked what they thought were key lessons in successful delivery of this programme. Similar points were raised at each area, and are summarised below.

- In order to achieve a good throughput of clients from the start, it would be helpful to promote the service before it is formally launched (e.g. establishing links with GPs, etc.). It might be appropriate for the project leader, administrator and a marketing assistant to be appointed 3 – 4 months before a project is formally launched, with clinical staff in place only shortly before launch.
- In order to deliver a complete service it is essential to have an integrated team in place from the launch of the project, so the full range of services can be delivered from the outset.
- It is crucial to promote the service to GPs; they are the most effective way of gaining referrals.
- Working with the different relevant agencies in the area is also important for successful promotion and delivery of the service.
- Following a communications / marketing plan is essential for promoting the service.
- Location of the team in one building facilitates team working, referral of clients from one therapist to another and learning from professional colleagues. Being based in a hospital means it is easy to refer on to other specialist support services if required.
- Multi-disciplinary team working is appreciated by the professionals, who see the value of this way of working both for clients, and their own professional development. A multidisciplinary team is judged by the project managers to result in improved outcomes. It is thought that the success of the team is greater than the success of the individual therapists; they are reported to have learnt from each other, and been able to develop their skills, and it is judged, to provide a better (more complete) service to clients because of this. Good team working is key to the process, and a common focus (on vocational rehabilitation) is essential. However, it is recognised that it can be challenging for clinicians to adopt a vocationally focused approach to clients, rather than a health focussed approach.
- It is essential to have an IT system that works, with the IT Board approval in advance of the project start date.
- There may be benefit in enabling the recording of more than one presenting issue per case, so that the complexity of cases is more accurately recorded.
- A successful project needs strong governance, i.e. a project group, buy-in from the key stakeholders, good project management and regular team meetings.

7. CONCLUSIONS AND RECOMMENDATIONS

The Working Health Services programme was successfully delivered in three areas over 24 months (WHS Dundee) and 12 months in WHS Borders and WHS Lothian respectively. Clients referred into the project were representative of the areas from which they were drawn. The project teams used a case management approach and delivered physiotherapy, occupational therapy and psychological therapy to 1,247 cases. The majority of clients heard about the service through their GP, and this appeared to be the most effective way of promoting the service. The waiting times for access to services were considerably shorter than the corresponding NHS outpatients lists. Operationally, the use of a web based database was very helpful in recording data and managing clients.

The programme led to improvements in clients' health as measured using standard tools, and assisted clients in returning to work or remaining in work; 83% of cases who were absent at entry were at work at discharge from the programme. Of the cases who had been absent for more than 30 days at the point they entered the programme (average absence = 180 days), 78% were at work when discharged from the programme. The health benefits (as measured using EQ-5D) and employment benefits (absence status) were maintained 3 and 6 months following discharge from the programme. There was a reported reduction in GP usage (on average 1 appointment per case less in a 3 month period) and a reduction in medication usage on discharge from the programme, although without a control group none of these changes can be attributed directly to the programme.

Subjective feedback from clients, employers, GPs and other allied health professionals was very positive about the programme.

Although it has not been possible to compare the results with a control group, there are indications that cases with musculoskeletal conditions took fewer days absence than might be expected based on HSE average absence figures for work-related health conditions. Future projects should seek to establish a control group to allow fuller analysis of the outcomes.

The multi-disciplinary team approach appeared to work effectively, facilitating communication and ensuring a common focus on the occupational aspects of a clients' condition. Case management was delivered both through a dedicated case manager and by clinicians adopting a case management function. The effectiveness of these approaches was not evaluated, although dedicated case managers had more contacts with clients than when the case management function was integrated into a clinical role.

The majority of the cases who entered the programme presented with a musculoskeletal condition. This is not thought to accurately reflect the likely health conditions of potential cases. The service was less successful at recruiting clients with mild or moderate mental health conditions. Ongoing services should consider ways of promoting the service to this group.

The cost of delivering the service was estimated to be £698 per discharged case, although the services appear to not have been operating at full capacity. Gaining sufficient referrals into the programme is essential to ensure cost efficiency, and GP engagement is particularly effective in generating referrals. Ongoing service delivery should seek to increase referrals into the programmes by focusing on promoting the service to GPs.

Due to the time taken to build up knowledge of the service among potential referrers, a longer time period for programme evaluation is likely to show that the cost of delivering the service is reduced per case. Continued funding of the programmes, as enabled through the Fit for Work projects should allow this to be evaluated.

Based on these findings the following recommendations can be made:

1. Programmes such as this should be actively marketed to GPs and other health professionals, as this is likely to be the most effective means of gaining referrals.
2. The programme should actively seek to recruit those with common mental health problems or other health problems as they are currently under-represented.
3. The programme should be provided for those whose health condition is affecting their ability to work. Mainstream NHS services should be used by those whose condition does not affect them at work.
4. In order to maximise efficiency, it may be beneficial to triage musculoskeletal cases as to whether they require case management, with case management only provided for complex cases.
5. Where case management is integrated into clinical functions, sufficient time should be allocated to undertake case management.
6. The programmes should seek to increase the number of cases referred into them, as this is likely to lead to greater efficiencies without significant detriment to service delivery.

8. ACKNOWLEDGEMENTS

The authors would like to thank the Scottish Government for funding this project, and in particular Roddy Duncan (Head of the Health and Work Unit) for his support; Kathleen Houston (Development Manager – Vocational Rehabilitation) of the Scottish Centre for Healthy Working Lives, for her vision in initiating and overseeing the programmes; and the team members in the three areas who worked on the project. Including those in part-time rotation posts, short term contracts and providing maternity cover, these were:

WHS Borders

Margaret Bowes
April Lindsay
Claire Martin
Rachel Ozanne (Project Manager)
Colette Smith

WHS Dundee

Cathy Grieve (Project Manager)
Suzie Harrold
Sarah Hill
Roy Jamieson
Angela Kerr
Shona Kerr
Kim Lockhart (Project Manager)
Kirsty Marr (Project Manager)
Audrey Paton
Duncan Rear
Cat Ross
Kelly Ross
Louise Wardlaw
Anne-Marie Webster

WHS Lothian

Eilidh Bateman
Kate Campbell
Shirley McCarthy
Gerard McFeely (Project Manager)
Lisa Paterson
Jyotsna Rai
Veronica Sanudo
Fiona Wilson
Cheryl Tudor

The support of the managers who oversaw the projects in each area is gratefully acknowledged: Irene Bonnar, Head of the NHS Borders Occupational Health service, for WHS Borders; Lucy Rennie, Strategy and Performance Manager for Dundee CHP for WHS Dundee; and Judy Gibson Rehabilitation Coordinator and Strategic Lead for Vocational Rehabilitation for WHS Lothian.

The project teams are also grateful for the assistance of their colleagues within the NHS who provided accommodation for the projects. The support of local GPs, other allied health professionals and organisations in promoting the services is also gratefully acknowledged.

Thanks are due to Graham McIntyre and Ashok Khindria of CES who developed and installed the database, and provided training in its use.

Finally, particular thanks are due to the clients who participated in the programme, and who agreed for their anonymous data to be collected and used for the project analysis.

9. REFERENCES

Black C, (2008), Working for a healthier tomorrow. TSO. Available from:
www.workingforhealth.gov.uk/Carol-Blacks-Review/Default.aspx

EuroQol Group 1990 European Quality of Life – 5 Dimensions. Available from:
<http://www.euroqol.org/home.html>

Galdas PM, Cheater F, Marshall P. 2005. Men and health help-seeking behaviour: literature review. *J Adv Nurs*. 2005 Mar;49(6):616-23.

Golderberg D, Williams P. 1988. A user's guide to the General Health Questionnaire. Windsor, UK: NFER-Nelson.

Hanson MA, Burton AK, Kendall NAS, Lancaster RJ, and Pilkington A, (2006), The costs and benefits of active case management and rehabilitation for musculoskeletal disorders. HSE Contract Research Report 493.

Hanson MA, Smith J and Wu, O, (In press), OHSxtra: Evaluation of OHSxtra – a programme providing occupational health case management and rapid access to services, delivered within 15 NHS Scotland boards (2007 – 2009). Scottish Government.

Hanson MA, Murray K, Wu O (2007) Evaluation of OHSxtra, a pilot occupational health case management programme within NHS Fife and NHS Lanarkshire, Available from:
<http://www.staffgovernance.scot.nhs.uk/downloads/1236336254-OHSxtra%20Final%20Report%20300707.pdf>

Health and Safety Executive, (2009), Labour Force Survey
<http://www.hse.gov.uk/statistics/lfs/0809/typesex3.htm>

Law M, Baptiste S, Carswell A, McColl MA, Polatajko H, Pollock N. 2005. Canadian Occupational Performance Measure (COPM). <http://www.caot.ca/copm/index.htm>

NHS Pay (Agenda for Change) <http://www.nhscareers.nhs.uk/details/Default.aspx?Id=766>

NIDMAR (National Institute of Disability Management and Research) www.nidmar.ca

Office for National Statistics (2010), Annual Survey of Hours and Earnings,
<http://www.scotland.gov.uk/Topics/Statistics/Browse/Labour-Market/TrendEarnings>

Pilkington A, Graham MK, Cowie HA, Mulholland RE, Dempsey S, Melrose AS, Hutchinson PA. (2002). Survey of Use of Occupational Health Support, HSE's Contract Research Report 445/2002

Scottish Government: Analysis of Ethnicity in the 2001 Census
<http://www.scotland.gov.uk/Publications/2004/02/18876/32939>

Scottish Government (2010), Economic Profiles for Local Authorities in Scotland
<http://www.scotland.gov.uk/Topics/Statistics/Browse/Labour-Market/EconomicProfilesLA>
City of Edinburgh - <http://www.scotland.gov.uk/Resource/Doc/933/0096412.xls>
Dundee City - <http://www.scotland.gov.uk/Resource/Doc/933/0096397.xls>
East Lothian - <http://www.scotland.gov.uk/Resource/Doc/933/0096404.xls>
Mid Lothian - <http://www.scotland.gov.uk/Resource/Doc/933/0096435.xls>
Scottish Borders - <http://www.scotland.gov.uk/Resource/Doc/933/0096456.xls>
West Lothian - <http://www.scotland.gov.uk/Resource/Doc/933/0096470.xls>

Scottish Index of Multiple Deprivation

<http://www.scotland.gov.uk/Publications/2009/10/28104046/0>

<http://www.scotland.gov.uk/Topics/Statistics/SIMD/SIMDPostcodeLookup>

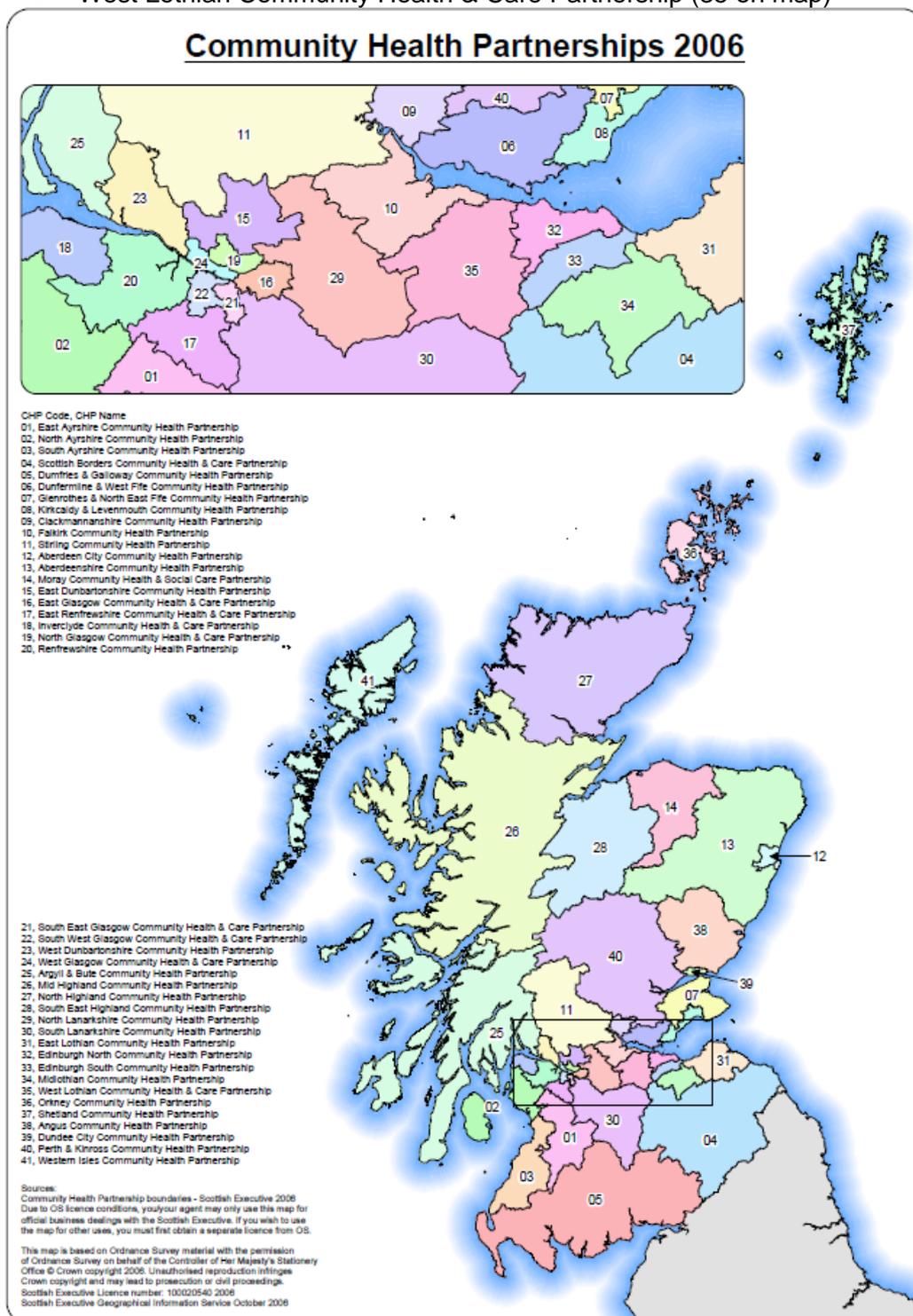
Waddell G, Burton AK, Kendall N, (2008), Vocational Rehabilitation. What works, for whom and when? London: The Stationary Office.

Working Time Regulations (1998)

Appendix 1: Map of geographic areas covered by the projects

The project was delivered in the following Community Health Partnership (CHP) areas:

- WHS Borders = Scottish Borders community health and care partnership (04 on map)
- WHS Dundee = Dundee City CHP (39 on map)
- WHS Lothian, made up of:
 - East Lothian CHP (31 on map)
 - Edinburgh North CHP (32 on map)
 - Edinburgh South CHP (33 on map)
 - Midlothian CHP (34 on map)
 - West Lothian Community Health & Care Partnership (35 on map)



Appendix 2: SIC and SOC codes for clients

The Standard Industrial Classifications (SIC) of Economic Activities (2007) of clients are shown in Table A1, with the most frequently reported SIC given first. Table A2 gives clients Standard Occupational Classifications (2000).

Table A1. Industries in which clients worked

Standard Industrial Classification of Economic Activities 2007	N	%
Other personal service activities	122	17.8
Construction of buildings	45	6.6
Human health activities	41	6.0
Food and beverage service activities	40	5.8
Education	28	4.1
Legal and accounting activities	26	3.8
Electricity, gas, steam and air conditioning supply	25	3.6
Residential care activities	22	3.2
Creative, arts and entertainment activities	20	2.9
Other manufacturing	18	2.6
Land transport and transport via pipelines	18	2.6
Social work activities without accommodation	17	2.5
Postal and courier activities	17	2.5
Specialised construction activities	16	2.3
Manufacture of textiles	15	2.2
Insurance, reinsurance and pension funding, except compulsory social security	15	2.2
Office administrative, office support and other business support activities	13	1.9
Financial service activities, except insurance and pension funding	12	1.8
Accommodation	10	1.5
Wholesale and retail trade and repair of motor vehicles and motorcycles	9	1.3
Retail trade, except of motor vehicles and motorcycles	9	1.3
Manufacture of furniture	9	1.3
Crop and animal production, hunting and related service activities	9	1.3
Manufacture of basic metals	8	1.2
Warehousing and support activities for transportation	7	1.0
Sports activities and amusement and recreation activities	7	1.0
Civil engineering	7	1.0
Manufacture of fabricated metal products, except machinery & equipment	6	0.9
Wholesale trade, except of motor vehicles and motorcycles	5	0.7
Water collection, treatment and supply	5	0.7
Manufacture of machinery and equipment n.e.c.	5	0.7

Information service activities	5	0.7
Computer programming, consultancy and related activities	5	0.7
Architectural and engineering activities; technical testing and analysis	5	0.7
Repair and installation of machinery and equipment	4	0.6
Real estate activities	4	0.6
Other professional, scientific and technical activities	4	0.6
Manufacture of rubber and plastic products	4	0.6
Telecommunications	3	0.4
Manufacture of wood, straw and plaiting	3	0.4
Manufacture of wearing apparel	3	0.4
Manufacture of other transport equipment	3	0.4
Manufacture of electrical equipment	3	0.4
Veterinary activities	2	0.3
Scientific research and development	2	0.3
Repair of computers and personal and household goods	2	0.3
Publishing activities	2	0.3
Public administration and defence; compulsory social security	2	0.3
Manufacture of paper and paper products	2	0.3
Manufacture of computer, electronic and optical products	2	0.3
Manufacture of basic pharmaceutical products and pharmaceutical preparations	2	0.3
Libraries, archives, museums and other cultural activities	2	0.3
Forestry and logging	2	0.3
Activities of households as employers of domestic personnel	2	0.3
Activities auxiliary to financial services and insurance activities	2	0.3
Water transport	1	0.1
Undifferentiated goods- and services-producing activities of private households for own use	1	0.1
Sewerage	1	0.1
Rental and leasing activities	1	0.1
Remediation activities and other waste management services	1	0.1
Manufacture of leather and related products	1	0.1
Manufacture of food products	1	0.1
Manufacture of chemicals and chemical products	1	0.1
Activities of membership organisations	1	0.1
Total	685	-

Table A2. Occupations of clients

Standard Occupational Classifications 2000 Sub-Major Groups	N	%
Caring personal service occupations	76	11.6
Leisure & other personal service occupations	75	11.5
Skilled construction & building trades	55	8.4
Administrative occupations	53	8.1
Textiles, printing & other skilled trades	52	8.0
Sales occupations	43	6.6
Skilled metal & electrical trades	42	6.4
Transport & machine drivers/operatives	42	6.4
Corporate managers	36	5.5
Business & Public service professionals	31	4.7
Process, plant & machine operatives	26	4.0
Secretarial & related occupations	23	3.5
Customer service occupations	17	2.6
Health professionals	15	2.3
Teaching & research professionals	12	1.8
Business & public service associate professionals	9	1.4
Health & social welfare associate professionals	9	1.4
Skilled agricultural trades	9	1.4
Science & technology professionals	8	1.2
Elementary trades, plant & storage related occupations	6	0.9
Science & technology associate professions	6	0.9
Managers & proprietors in agriculture & services	5	0.8
Elementary administration & service occupations	3	0.5
Culture, media & sports occupations	1	0.2
Total	654	-