

Audit of Exercise Referral Scheme activity in Scotland March 2010

Ruth Jepson, University of Stirling

Roma Robertson, University of Stirling

Lawrence Doi, University of Stirling

The opinions expressed in this publication are those of the author/s and do not necessarily reflect those of NHS Health Scotland.

Published by NHS Health Scotland,
Woodburn House, Canaan Lane, Edinburgh, EH10 4SG
© NHS Health Scotland 2010

Table of Contents

| | |
|--|----|
| Executive summary..... | i |
| 1. Introduction | 1 |
| 1.1 Definition of exercise referral schemes (ERS)..... | 2 |
| 1.2 Aims and objectives of audit..... | 3 |
| 2. Methods | 3 |
| 2.1 Identifying potential relevant schemes | 3 |
| 2.1.1 <i>Validating and checking information about the number of schemes</i> | 4 |
| 2.2 Data collection..... | 4 |
| 2.3 Ethical issues and obtaining informed consent..... | 5 |
| 2.4 Data protection and confidentiality | 5 |
| 3. Results..... | 5 |
| 3.1 Geographical location and coverage of exercise referral schemes | 6 |
| 3.1.1 <i>Coverage by health board area</i> | 6 |
| 3.1.2 <i>Coverage by local authority area</i> | 8 |
| 3.1.3 <i>Schemes no longer running</i> | 9 |
| 3.1.4 <i>Planned schemes</i> | 10 |
| 3.2 Population groups targeted by the schemes | 10 |
| 3.2.1 <i>General primary care population 'at risk' of chronic diseases</i> | 10 |
| 3.2.2 <i>People with mental health problems in primary care</i> | 10 |
| 3.2.3 <i>People with mental health problems in secondary care</i> | 10 |
| 3.2.4 <i>Cardiac rehabilitation patients</i> | 11 |
| 3.2.5 <i>Other schemes</i> | 11 |
| 3.3 Size of the schemes | 11 |
| 3.4 Type of activities provided by the schemes | 11 |
| 3.5 Length of time the schemes have been running..... | 11 |
| 4. Discussion..... | 12 |
| 5. Conclusions | 13 |
| 6. References..... | 13 |
| Appendix..... | 14 |
| Appendix 1: Names of the schemes in each of the health board areas..... | 14 |
| Appendix 2: Schemes involving leisure centres by LA area | 18 |

Executive summary

Background

Although current guidelines recommend that healthy levels of activity are 30 minutes per day for adults and 1 hour per day for children and young people, there are concerns that these levels are not being met by large numbers of people in Scotland and that greater numbers of sedentary people are found in the lower socioeconomic groups.

Research has also found general inequalities in health related to income levels, with higher clusters of ill health within disadvantaged or deprived communities. 'Let's Make Scotland More Active' was published in 2003 by the then Scottish Executive and sets out the recommendations for increasing levels of physical activity within the population. Exercise referral schemes (ERS) aim to increase participation in physical activity and, more specifically, aim to treat or prevent ill health in individuals who have, or are at risk of, ill health by encouraging participation in physical activity for the improvement of health and well-being. The majority of schemes offer activity to 'at risk' groups of people as well as the general population via primary care professionals and local service providers. Most schemes also promote the benefits of a healthy lifestyle and encourage long-term adherence to physical activity.

The aim of this audit was to identify all exercise referral schemes in Scotland and to provide some basic information on these schemes.

Methods

We used a range of methods to identify schemes including contacting leisure centres, GPs, and relevant professionals in health boards, community health partnerships and local authorities. We also used existing contacts and snowballing techniques. We collected and collated the data into an Excel spreadsheet and undertook some descriptive analysis of the data.

Results

We identified 49 exercise referral schemes which primarily target primary care populations and a further 13 which primarily target secondary care populations or specific groups.¹ There were 21 large or medium sized exercise referral schemes (all targeting the primary care population), and a further 41 small schemes (e.g. covering a single practice, targeted secondary care populations or only including outdoor activities). Over 80% of the medium and large schemes (n=21) had been in existence for over 5 years. Overall, approximately 70% of the 1014 Scottish general practices have access to an exercise referral scheme with around 60% of local authority leisure centres involved. However, coverage differs by health board and local authority area.

Four of the 14 health boards (21%) had almost complete geographical coverage (Greater Glasgow and Clyde, the Western Isles, Ayrshire and Arran and

¹ We did not set out to identify secondary care ERS but if we were given information on them we recorded it and included it in a database. Therefore, this number does not reflect the 'true' number of secondary referral schemes.

Lanarkshire). Three of the health boards (21%) had no ERS at all – Borders, Shetlands and Orkney. All had had some form of ERS in the past but these had finished. The other eight health boards varied in the coverage, which depended to some extent on the number of local authority areas within the health board area. For example, Lothian Health Board covers four LA areas, three of which have exercise referral schemes. Highland Health Board has two main LA areas; one of which (Argyll and Bute) has an organised exercise referral scheme covering a wide geographical area, whereas the other LA (Highland), has a range of smaller schemes.

Many of the schemes were run by local authorities, with funding from NHS sources and used local authority leisure centres. Seventeen out of the 32 local authority areas (53%) had exercise referral schemes which covered the whole of their geographical area, and included most of the leisure centres. Six out of the 32 local authority areas (22%) had no exercise referral scheme aimed at the general primary care population which used leisure centres (two of these LA areas had condition specific schemes only, such as for cardiac rehabilitation patients or those with lower back pain referred by physiotherapists). The other nine LAs had some coverage in their geographical area but it is not complete. For example, Highland LA has four small schemes, but these only covered small and very geographically defined areas.

Conclusions

Although 49 primary care exercise referral schemes were identified, coverage is not universal and several large geographical areas have no access at all to exercise referral schemes. Three out of the 14 health boards and six out of the 32 local authorities had no such scheme provision. Although over 70% of general practices have access to one or more exercise referral schemes, it was not possible through this audit to ascertain the number of general practices who referred onto such schemes, or the number of referred patients who completed and benefited from such schemes.

1. Introduction

Scotland has a population of 5,493,023 and covers 78,772 km² (30,414 sq mi).² It has 14 health board (HB) areas, 40 community health partnerships (CHPs) and 32 local authorities. In total, there are around 1,014 general practices (with 4538 general practitioners (GPs))³ in Scotland. Table 1 shows ISD data⁴ on the number of practices per health board area and the population they provide services to.

Table 1: Number of general practices by health board area and the population they cover

| | Number of general practices ^{a,b} | Population |
|--------------------------|--|------------------|
| Scotland | 1,014 | 5,493,023 |
| <i>Health Board Area</i> | | |
| Ayrshire & Arran | 59 | 387,692 |
| Borders | 25 | 116,227 |
| Dumfries & Galloway | 35 | 155,406 |
| Fife | 57 | 373,964 |
| Forth Valley | 57 | 308,239 |
| Grampian | 83 | 570,135 |
| Greater Glasgow & Clyde | 270 | 1,305,535 |
| Highland | 102 | 321,998 |
| Lanarkshire | 98 | 590,756 |
| Lothian | 124 | 874,136 |
| Orkney | 14 | 20,390 |
| Shetland | 10 | 22,621 |
| Tayside | 68 | 418,370 |
| Western Isles | 12 | 27,554 |

a. Excludes practices which do not have registered patients and which are run directly by the NHS Boards e.g. Out of Hours Services centres. b. The list excludes a small number of specialist services practices that, by their nature, have potentially disclosive list sizes.

The current recommended healthy level of activity is 30 minutes per day for adults and 1 hour per day for children and young people. There are concerns that these levels are not being met by large numbers of people in Scotland and that greater numbers of sedentary people are found in the lower socioeconomic groups.

Research has also found general inequalities in health related to income levels, with higher clusters of ill health within disadvantaged or deprived communities (Pickett and Pearl, 2001). 'Let's Make Scotland More Active' was published in 2003 by the then Scottish Executive and sets out the recommendations for increasing levels of physical activity within the population (Scottish Exec, 2003). Exercise referral schemes (ERS) aim to increase participation in physical activity and more specifically aim to treat or prevent ill health in individuals who have or are at risk of ill health by encouraging participation in physical activity for the

² <http://www.scotland.org/about/fact-file/>

³ http://www.rcgp.org.uk/pdf/ISS_FACT_06_KeyStats.pdf

⁴ www.isdscotland.org/GPpracs&pops

improvement of health and well-being. The majority of schemes offer activity to 'at risk' groups of people as well as the general population via primary care professionals and local service providers. Most schemes also promote the benefits of a healthy lifestyle and encourage long-term adherence to physical activity.

1.1 Definition of exercise referral schemes (ERS)

Exercise referral schemes (also known as 'exercise on prescription' or 'physical activity referral schemes') are a multi-agency intervention involving local NHS health boards, general practices, community health partnerships (CHPs), local authorities (LA) and often voluntary and private leisure service providers. Each scheme will have its own particular way of referring and partnerships but a key health professional from a primary care setting will normally be the referring partner.

Sedentary patients with existing health problems (for example, diabetes, asthma, back pain, depression, osteoarthritis) or risk factors for future ill health (for example, those who are overweight/obese or have other risk factors for cardiovascular disease (CVD)) can be referred by general practitioners and other healthcare professionals to a programme of free or subsidised exercise. This can take place at a local leisure centre, other indoor facility or outdoors. Examples of exercise include gym and swimming activities, keep-fit classes, and 'green prescription' activities such as outdoor walks and environmental volunteering in local projects. The exercise is very often supervised. However, many schemes have their own referral pathway and use particular services to which individuals can be referred depending on the resources available in the area and the type of activity most suitable to the individual.

Several reviews of the effectiveness of exercise referral schemes have been published (NICE, 2006; Williams, Hendry, France et al., 2007), and present equivocal results as to the effectiveness of ERS. However, they do appear to be effective over the short period (less than 12 weeks) but less effective over the longer period. The Department of Health in England and Wales developed a National Quality Assurance Framework (NQAF) for GP exercise referral schemes in 2001⁵ which set out guidance and recommended quality standards (see Box 1).

For the purpose of this audit we took a very broad approach and included all schemes or projects which had either formal or informal referral from a health professional (HP) to some form of physical activity. We were primarily interested in those referrals originating from a primary care health professional. However, we also collected and reported data on secondary care schemes when we identified one, or were told about one.

⁵ www.bhfactive.org.uk/downloads/ex-ref-framework.pdf

Box 1: NQAF recommended quality standards for ERS

- Establish a formally agreed process for the selection, screening and referral of specific patients.
- Conduct appropriate assessment of patients prior to the exercise programme.
- Provide a specific range of appropriate and agreed physical activities for a defined period of time, which maximise the likelihood of long-term participation in physical activity.
- Ensure any assessments and the exercise programme are delivered by professionals with appropriate competencies and training which match the needs of the patient being referred.
- Incorporate a mechanism for the evaluation of such a referral process.
- Facilitate long-term support for patients to maintain increases in physical activity.
- Ensure the patient is consulted and involved throughout the referral process and is encouraged to take responsibility for their health and physical activity participation.
- Ensure confidentiality of patient information through secure and appropriate storage of records.

1.2 Aims and objectives of audit

The aim of this audit was to identify all current ERS activity in Scotland together with interagency partnerships in order to inform the development of future ERS activity. The objectives of the study were to:

- identify and record key information relating to each scheme, the ERS location, the principal contact person, the partnerships involved and the lead partnership
- identify the scale of the scheme (whether the ERS is part of a bigger scheme or an individual general practice)
- chart the geographical area covered by the scheme
- outline key target groups covered under the scheme
- update existing information (for above objectives only) obtained previously under the British Heart Foundation (BHF) National Centre audit
- provide the information in database spreadsheet format (Excel).

2. Methods

The research was undertaken using primarily desk based quantitative methods in order to obtain data to meet the objectives and the key areas of investigation described above.

2.1 Identifying potential relevant schemes

Exercise referral schemes are usually organised at a LA, health board or local (general practice or leisure centre) level. To try and identify both large and small schemes we used a number of different strategies, designed to achieve maximum validation of the data we collected. We directly contacted the following:

1) Known exercise referral schemes

We already had information from the BHF audit (and other research on green prescription [outdoor activity referral] schemes) about schemes in Scotland. We contacted each scheme to find out more about them (such as whether they were still running, number of general practices involved and number of leisure centres involved).

2) General practices

We sent out an invitation to complete an online survey to around 800 Scottish general practices via 13 of the 14⁶ health board primary care leads (who have regular contact with GPs with regards to updates, sending information etc). The survey was supported by a letter from NHS Health Scotland outlining why it was being undertaken and that it was at the request of the Scottish Government. A reminder was sent after two weeks. For ease of data collection from the GPs, we used electronic methods (using Survey Monkey). To determine response rates, practice staff (normally practice managers) were asked to fill in one of two surveys: either a survey about the ERS that they were part of; or if they were **not** part of an ERS, a survey asking only for their contact details.

3) Leisure centres

One researcher contacted over 100 local authority leisure centres which had the potential to provide ERS – for example those which had swimming and/or leisure facilities. Due to time restraints, and the lack of potential relevance, we did not contact leisure facilities such as golf courses or tennis courts. We also did not contact leisure centres in geographical locations where we already had information provided by the ERS contacts above (for example, in Glasgow and Edinburgh LAs we knew how many were involved from discussions with the scheme organisers).

2.1.1 Validating and checking information about the number of schemes

Validation and checking of the data we had about the schemes was an ongoing process. We regularly mapped the data we had about the number (and names) of the schemes by health board and local authority area. Where we did not have complete information, or in LA or HB areas where we identified no schemes, we contacted relevant people in the local health board, local authority or community health partnership for more information. For example, we sent relevant people a list of the ERS for their area that we had found through the strategies described above, and asked them to confirm whether the information was correct or whether there were schemes that we had missed. We also searched the websites of these organisations for further details about possible schemes.

2.2 Data collection

We recorded all information directly into an Excel database. The data we collected in the survey are outlined in Box 2.

⁶ On the advice of the local primary care lead, emails were not sent out to GPs in the Greater Glasgow and Clyde area as there is a well established ERS scheme (Live Active) which all the GPs can refer to (n=280).

Box 2: Data on the ERS that were collected in the audit

Title of the scheme (if there was one)
Overall aim
Contact details
Lead agency or agencies
Geographical location
Length of time the scheme has been running for
When the scheme stopped (if stopped in past 5 years)
Number of HP referrals (who, how often, etc.)*
Size of scheme (in terms of GP or other 'units')
Target population group
Primary or secondary care referrals
Type of physical activity provided (outdoors, indoors or both)

*not possible for most schemes

2.3 Ethical issues and obtaining informed consent

As this was an audit, with a minimal amount of data being collected, we did not need to gain ethical approval from an NHS ethics committee. We did adhere, however, to research governance guidelines and we made it clear that the data we collected would be passed on to the NHS and Scottish Government to be used to further develop and improve relevant services.

2.4 Data protection and confidentiality

We fully complied with the terms of the Data Protection Act 1998. However, as this is an audit we did not anonymise the results. All data will be held on a secure, password protected University computer for seven years.

3. Results

In total we identified 62 schemes (49 primary care and 13 secondary care) which included 21 large or medium sized ERS aimed at the primary care population and a further 41 small schemes which included both primary and secondary care, single practice schemes and outdoor schemes with an element of health professional (HP) referral.

The email highlighting the survey (and the reminder after 2 weeks), via the primary care leads in 13 health boards to approximately 800 general practices, resulted in 123 (24%) general practices responding to the survey – 92 were part (or had been part) of an ERS and 31 were not. It is not entirely clear why the response rate was so low – it could be that those general practices that did not respond were not part of any ERS (and did not think the survey was relevant to them), or that the email did not reach all of the 800 potential practices. Some Health Board areas did have very low response rates. In these areas (particularly Highlands and Aberdeenshire) we used a range of other strategies such as contacting leisure centres, LAs and health boards to identify local ERS (see above under section 2.1). We also directly contacted the CHP leads in these areas, several of whom did provide details of some small schemes, or verified that there were no exercise referral schemes. As we used a range of other strategies to identify exercise referral schemes – particularly contacting leisure centres in areas where we did not know of any schemes – the ones that are likely to be missed by the audit are small, local, ERS schemes which take place in a

community centre or other venue. Such schemes are likely to be difficult to identify using any method.

The majority of the general practices who responded were part of larger schemes that are detailed in this report. Three general practices reported that they had had schemes in the past in their own practice. Only one of the practices in the survey was currently running their own scheme.

The general practices who responded that they were not part of a scheme were in areas where we had already identified gaps in provision such as Fife (but an ERS is planned – see below), Stirlingshire, parts of Perthshire, Orkney, and parts of Argyll and Bute (e.g. Tiree). However, several practices in areas where there are ERS such as Dundee and Edinburgh also replied that they were not part of a scheme. Thus knowledge of what exercise referral schemes are available is not always known by general practices, and we had to verify some of the information received from them.

We also contacted directly about 100 leisure centres across Scotland focussing on geographical areas which we knew were not part of one of the big exercise referral schemes and areas in which we had not received replies from GPs. From these we identified small schemes which were not identified through other methods.

For the purpose of this audit, the schemes were grouped into the following three categories:

- 1) Large – covering a health board area.
- 2) Medium – covering a LA area or most of a LA area.
- 3) Small – single practice schemes; schemes in one town; outdoor referral schemes (e.g. to led walks); highly targeted schemes such as cardiac rehabilitation.

3.1 Geographical location and coverage of exercise referral schemes

3.1.1 Coverage by health board area

Table 2 provides details of the health board areas, the number and size of the schemes, and the geographical coverage within the health board area. More details of the schemes (e.g. name of scheme) are provided in Appendix 1.

Four of the 14 health boards (21%) had almost complete geographical coverage (Greater Glasgow and Clyde, The Western Isles, Ayrshire and Arran and Lanarkshire). Coverage was achieved in different ways. Greater Glasgow and

Clyde Health Board had complete coverage through one large exercise referral scheme whilst for Lanarkshire and Ayrshire and Arran this coverage was achieved by several exercise referral schemes provided by the LAs within the health board areas (although some LA had more complete coverage than others). The Western Isles had almost complete coverage with only the Isle of Barra without access to a scheme.

Three of the health boards (21%) had no ERS at all – Borders, Shetlands and Orkney. All had had some form of ERS in the past but these had finished.

The rest of the health boards varied with the amount of coverage they had. For example, Lothian had complete coverage (but for people with mental health problems only in Edinburgh LA) in three of the four LA areas, with only East Lothian having incomplete coverage. Dumfries and Galloway had two small schemes which covered two towns in the West and four towns in the East.

Table 2: Health board area, size of the scheme of the scheme, geographical location and % of general practices with access to a scheme

| HB area | Large ERS (n) | Medium ERS (n) | Small ERS (n) | Geographical coverage | General practices in HB area | General practices (%) which have access to ERS |
|------------------------------------|---------------|----------------|---------------|--|------------------------------|--|
| Ayrshire & Arran | 0 | 3 | 2 | North Ayrshire (including Arran) South Ayrshire East Ayrshire | 59 | 59 (100%) |
| Borders | 0 | 0 | 0 | No coverage | 25 | 0 (0%) |
| Dumfries & Galloway | 0 | 2 | 2 | Annan, Langholm, Dumfries, Sanquhar, Stranraer and Newton Stewart | 35 | 13 (37%) |
| Fife | 0 | 1 | 2 | Some areas of Fife* | 57 | 57*(100%) |
| Forth Valley | 0 | 1 | 3 | Majority of the Forth Valley LA Area, Some Stirling area | 57 | 27 (47%) |
| Grampian | 0 | 1 | 5** | Moray; Banff/Macduff; Aberdeenshire (mainly cardiac rehab) | 83 | 16 (19%) |
| Greater Glasgow & Clyde | 1 | 0 | 5 | Glasgow City, East & West Dunbartonshire, East Renfrewshire, Renfrewshire, Inverclyde | 270 | 270 (100%) |
| Highland | 0 | 1 | 8** | Bute, Islay, Helensburgh, Dunoon, Oban, Campbelltown, Alness, Kyle of Lochalsh, Invergordon, | 102 | 22 (22%) |
| Lanarkshire | 0 | 4 | 1 | North Lanarkshire East Kilbride & Strathaven; Rural South Lanarkshire, Cambuslang, Rutherglen, Motherwell | 98 | 86 (88%) |
| Lothian | 0 | 3 | 11 | LA areas of Edinburgh, Mid Lothian & West Lothian; Parts of East Lothian | 124 | 108 (87%) |
| Orkney | 0 | 0 | 0 | No coverage | 14 | 0 (0%) |
| Shetland | 0 | 0 | 0 | No coverage | 10 | 0 (0%) |
| Tayside | | 3 | 2 | Most areas of Tayside except Coupar Angus and Blairgowrie | 68 | 64 (94%) |
| Western Isles | 1 | 0 | 1 | Stornoway, Lewis & the Uists (not in Barra but will be soon). | 12 | 9 (75%) |
| Total | 2 | 19 | 41** | | 1014 | 712 (70%) |

* new scheme is proposed for 2010 which will cover all of Fife area;** one scheme covers two areas and is only counted once in total

3.1.2 Coverage by local authority area

Many of the schemes were run by local authorities. Table 3 provides details of the schemes by local authority area, and includes the number of local authority leisure centres (those with gym and/or swimming facilities) included in the schemes. In this table we have only included schemes which were run by LA and involve leisure centres (i.e. we have excluded outdoor schemes which had no indoor component, or schemes which used other facilities). A fuller list of all the schemes (i.e. including outdoor and targeted schemes) is detailed in Appendix 2.

Seventeen out of the 32 local authority areas (53%) had exercise referral schemes which covered the whole of their geographical area, and included most of the leisure centres. Six out of the 32 local authority areas (22%) had no exercise referral scheme aimed at the general primary care population which used leisure centres (two of these LA areas had specific schemes only for cardiac rehabilitation patients or those with lower back pain referred by physiotherapists). The other nine LA had some coverage in their geographical area but it was not complete. The Highlands LA had three small schemes but these were very geographically defined.

Table 3: Coverage[#] by local authority area, and number of leisure centres involved in ERS

| Local authority | Geographical coverage | Name of scheme(s) | Leisure centres (n) | Leisure centres involved (%) |
|--------------------------------|---|---|---------------------|------------------------------|
| Aberdeen City | <i>No general exercise referral schemes</i> | <i>Cardiac referral only</i> | 14 | 2 (14%) |
| Aberdeenshire | ERS | Banff/MacDuff <i>Other areas, cardiac referral only</i> | 18 | 8 (44%) |
| Angus | Brechin, Montrose, Forfar, Kirmuir, Arbroath & Carnoustie | Angus Exercise Referral Programme | 9 | 9 (100%) |
| Argyll & Bute | Bute, Islay, Helensburgh, Dunoon, Oban, Campbelltown | Argyll Active; Aquacare; Freshstart | 8 | 8* (100%) |
| Clackmannanshire | None | None | 2 | 0 (0%) |
| Dumfries & Galloway | Stranraer, Newton Stewart, Annan, Langholm, Dumfries & Sanquhar | East ERS; South ERS | 13 | 2 (15%) |
| Dundee City | LA area | Active for Life | 5 | 5 (100%) |
| East Ayrshire | LA area | C.H.I.P Lifestyle Referral Scheme | 4 | 4 (100%) |
| East Dunbartonshire | LA area | Live Active | 2 | 2 (100%) |
| East Lothian | <i>No general exercise referral schemes</i> | Low Back Pain ERS; Cardiac rehab scheme | 6 | 5 (83%) |
| East Renfrewshire | LA area | Live Active | 4 | 2 (50%) |
| Edinburgh, City of | LA area | Healthy Active Minds; Healthy Active mums; Exercise after Stroke; Youth Exercise referral | 17 | 17 (100%) |
| Eilean Siar | LA area (not Barra) | Spring Back to Health | 7 | 6 (86%) |
| Falkirk | LA area | Active Forth | 9 | 3 (33%) |
| Fife | Parts of Fife | Fife Sports Institutes | 11 | 9 (82%) |

| Local authority | Geographical coverage | Name of scheme(s) | Leisure centres (n) | Leisure centres involved (%) |
|----------------------------|---|--|---------------------|------------------------------|
| | | Referral Programme; Fife Cardiac Rehab | | |
| Glasgow City | LA area | Live Active | 32 | 32 (100%) |
| Highland | Kyle of Lochalsh, Invergordon, Alness, Mallaig | Restart; ERS fitness referral scheme | 11 | 4 (40%) |
| Inverclyde | LA area | Live Active | 4 | 4 (100%) |
| Midlothian | LA area | Midlothian Healthy Active Choices | 8 | 8 (100%) |
| Moray | LA area Buckie | Moray ERS; Ardach Health Centre ERS | 7 | 7 (100%) |
| North Ayrshire | LA area (including Arran) | Active North Ayrshire | 5 | 5 (100%) |
| North Lanarkshire | LA Area | Get Active | 12 | 12 (100%) |
| Orkney Islands | None | None | 2 | 0 (0%) |
| Perth & Kinross | Perth, Crieff, Kinross, Pitlochry and Aberfeldy. | Perth and Kinross LA Referral Scheme | 10 | 7 (70%) |
| Renfrewshire | LA area | Live Active | 9 | 9 (100%) |
| Scottish Borders | None | None | 12 | 0 (0%) |
| Shetland Islands | None | None | 9 | 0 (0%) |
| South Ayrshire | LA area | Activity for Health | 5 | 5 (100%) |
| South Lanarkshire | Cambuslang, Rutherglen East Kilbride & Strathaven | Life Active; EK Leg It | 22 | 2 (9%) |
| Stirling | None | None | 5 | 0 (0%) |
| West Dunbartonshire | LA area | Live Active | 3 | 3 (100%) |
| West Lothian | LA area | First Steps to Health and Wellbeing | 10 | 10 (100%) |
| TOTAL | | | 295 | 190 (64%) |

#only ERS which involve leisure centres;

3.1.3 Schemes no longer running

Several large schemes which had been up and running in the early part of the decade no longer exist. These included schemes in the Shetland and Orkney Islands, Clackmannanshire, Aberdeen, Edinburgh (for the general primary care population), Inverness, parts of the Highlands and the Borders. For example, NHS/Scottish Government collaborated with the Highland Council and initiated the ERS across the Highlands some years ago. The scheme was intended to be centrally funded for 3 years and then continued with local authorities funding the leisure centres. However, most LAs were unable to do this when the project ended (in around 2008) bringing an end to most of the ERS in the Highlands.

These areas mentioned above are now without any large exercise referral schemes; although Edinburgh City Council does offer a variety of ERS for people with specific conditions including a large LA wide ERS for people with mild to moderate depression (see section 3.2.2).

Other smaller pilot schemes (most received funding for a specific time period) have been undertaken in the past five years, primarily in single general practices, and are now no longer running.

3.1.4 Planned schemes

A new exercise referral scheme is in development in Fife and will cover the whole of the local authority area.

3.2 Population groups targeted by the schemes

Whilst we primarily concentrated on identifying those schemes which were aimed at GP referral of people at risk of developing conditions such as diabetes, CHD etc. we did identify other schemes aimed at specific population groups and they are also included in this report. However, we may have missed some of these schemes (such as those aimed at people undergoing cardiac rehabilitation) as this was not the main focus of the audit. Table 4 details the number of schemes for each of the population groups and the subsequent sections provide more information on those groups and the type of schemes.

Table 4: Number of ERS per population group

| Population group | Number of exercise referral schemes |
|--|--|
| General primary care population or those 'at risk' of chronic diseases | 46 |
| Primary care population with mild to moderate depression | 3 |
| People with mental health problems (secondary care) | 4 |
| Cardiac rehabilitation ERS | 3 (+ 2*) |
| Other targeted exercise referral schemes | 6 |

*offered as part of larger exercise referral schemes

3.2.1 General primary care population 'at risk' of chronic diseases

Most of the schemes we identified were aimed at the general primary care population. Each of the schemes had their own inclusion criteria, but tended to focus on people in the general population who were 'at risk' such as those who were sedentary, overweight, hypertensive or diabetic. Included in the 40 identified in Table 4 are outdoor schemes such as walking and conservation groups which have some element of Health Professional referral.

3.2.2 People with mental health problems in primary care

We identified one ERS in Edinburgh (Healthy Active Minds) for adults aged 18 years or over who have mild to moderate mental health problems, including anything from stress to depression. Referral onto the project is via a GP and all GP practices in Edinburgh (over 70) can refer onto the programme. In Midlothian, the criteria for the Midlothian Healthy Active Choices scheme is similar, although the scheme is also open to people who are sedentary and/or obese. We also identified one ERS in Edinburgh (Health Active Mums) which was for mothers diagnosed with low mood, anxiety or post natal depression (PND) to get support to access physical activity opportunities within Edinburgh Leisure sites alongside fully funded crèche spaces. Referral is through a health visitor.

3.2.3 People with mental health problems in secondary care

We identified two ERS which took referrals for people with mental health issues only from secondary care onto their projects. These were 'Branching Out' a conservation project in Greater Glasgow and Clyde Health Board, and 'Pedal 4th'

a cycling project in Forth Valley. Other outdoor schemes for people with mental health problems included Blarbuie Woodland Enterprise in Argyll and Bute, and allotment schemes such as those in Maryhill, Glasgow.

3.2.4 Cardiac rehabilitation patients

Although not the focus of the audit (and not a comprehensive list) we identified three ERS aimed at cardiac rehabilitation schemes, including one run by a voluntary organisation in East Lothian, one in Fife and one in Grampian. In addition, several of the larger schemes also offered a programme of activities specifically developed for such patients (e.g. Argyll Active and Moray Referral Scheme) and referral could be through a GP or a health professional in secondary care.

3.2.5 Other schemes

There are also a number of other schemes targeting specific populations such as those with an existing health condition (stroke, chronic obstructive airways disease (COPD), low back pain), disadvantaged groups, or people with learning disabilities. For example, an 'Exercise after Stroke' (EAS) scheme in Edinburgh implemented, in 2009, a 16 week pilot of specific fitness and exercise interventions for people who had had a stroke. The four specialist instructors helped to develop physical fitness training sessions alongside a multi disciplinary and agency working group. The working group is currently compiling a review of the pilot with a view to gain sustainable support for the EAS programme. The EAS programme continues to run in several Leisure Centres in Edinburgh with gym based sessions. Referrals are received from health professionals working closely with the participants.

3.3 Size of the schemes

The schemes ranged from covering one practice area (e.g. in Buckie) to covering a whole health board area. Live Active, for example, the largest of the schemes we identified, covered all of the Greater Glasgow and Clyde health board area in which there are over 240 general practices. In between there was a range of schemes, most of which covered a LA area.

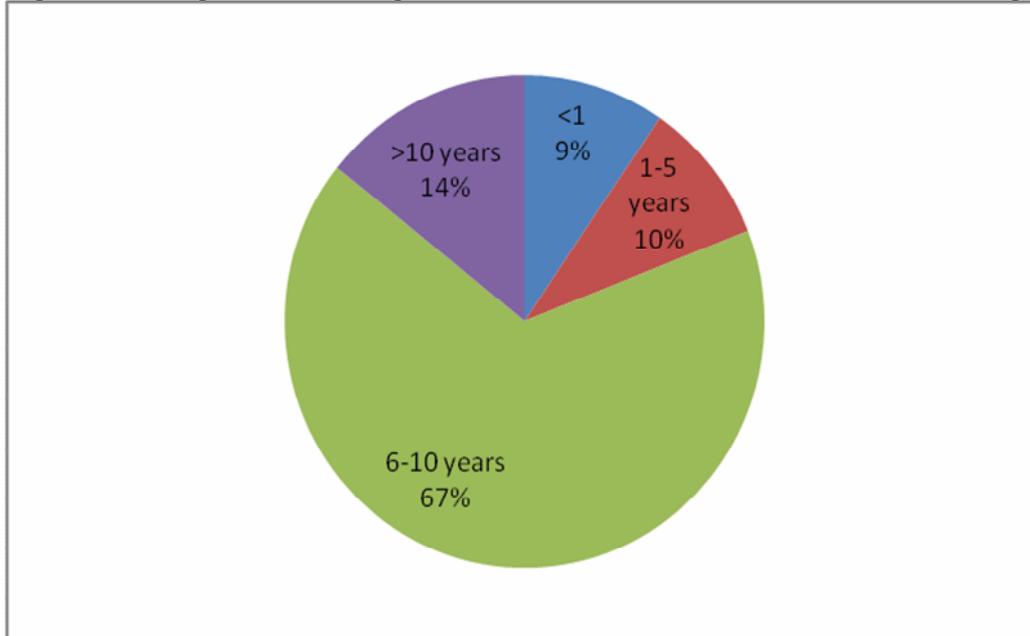
3.4 Type of activities provided by the schemes

The majority of the schemes offered indoor activities such as swimming and gym based activities. However a few did link in with outdoor organisations and offered people the opportunity to take part in activities such as led walks (e.g. Active Forth referred onto the walking programme Step Forth).

3.5 Length of time the schemes have been running

Figure 1 shows the length of time the large and medium size schemes have been running. Over 80% have existed for longer than five years.

Figure 1: Length of time large and medium schemes have been running



4. Discussion

Although we used a range of methods to identify exercise referral schemes, it is possible that we have missed some small schemes run by individual GP practices. However, by cross checking with leisure centres, CHPS, Health Boards and local authorities we are confident that our figures are accurate to within 5-10%, especially for those which take place in local authority leisure centres. This audit is a snap shot of exercise referral schemes in Scotland in 2010, and if was repeated at another time point, it would likely identify new ones that had been set up and others that had finished. The time and resources was not available to contact every general practice individually and so it is inevitable that some of the smaller schemes will have been missed, especially those that don't use leisure centres. We also collected ad hoc data on exercise referral schemes for the secondary care population and we expect that the numbers are higher that we reported for other schemes such as those for cardiac rehabilitation patients.

We did not collect data on referral rates or the number of Health Professionals using the schemes. However, in talking to scheme providers, some of the schemes did not have up to date information about the number of practices involved, the number who referred or other data on effectiveness and use of the schemes. Therefore, although around 70% of GP practices may have access to the scheme, some may not refer patients for a variety of reasons, or patients may not attend. The systematic review of ERS found small effect sizes (Williams, Hendry, France et al., 2007) which the authors thought could be at least be partly explained by poor rates of uptake and adherence to the schemes. Poor rates of attendance had also been found in another systematic review of ERS in the UK which specifically looked at this issue and reported that approximately 80% of participants who took up referral dropped out before the end of programmes (Gidlow, Johnston, Crone et al., 2005).

In this audit we did not evaluate or map how closely the existing schemes followed the recommended quality guidelines outlined in Box 1. However, several of the larger schemes did seem to incorporate many aspects of the guidelines, particularly regarding the assessment of the patient (usually by a specialist physical activity facilitator).

5. Conclusions

Although 49 primary care exercise referral schemes were identified, coverage is not universal and several large geographical areas have no access at all to exercise referral schemes. Three out of the 14 health boards and six out of the 32 local authorities have no formal exercise referral scheme provision. Even though over 70% of GP practices have access to one or more exercise referral schemes, it was not possible through this audit to ascertain the number of GPs who referred onto such schemes, or the number of referred patients who completed and benefited from such schemes.

6. References

Gidlow C, Johnston LH, Crone D, et al. Attendance of exercise referral schemes in the UK: a systematic review. *Health Educ J* 2005;64:168–86.

NICE (2006) *A rapid review of the effectiveness of ERS to promote physical activity in adults*.

Pickett, K.E. & Pearl, M. 2001. Multilevel analyses of neighbourhood socioeconomic context and health outcomes: a critical review. *Journal of Epidemiology and Community Health* 55: 111-122.

Scottish Executive (2003) *Let's make Scotland more active*; Edinburgh: Scottish Executive

Williams NH, Hendry M, France B, et al. Effectiveness of exercise-referral schemes to promote physical activity in adults: systematic review. *Br J Gen Pract* 2007;57:979–86.

Appendix

Appendix 1: Names of the schemes in each of the health board areas

| HB area | Large schemes covering most of whole HB area | Schemes covering LA or several towns/cities | Smaller schemes covering one general practice/town/hospital; outdoor referral schemes, targeted schemes | Geographical coverage |
|--------------------------------|--|---|---|--|
| Ayrshire & Arran | | Active North Ayrshire | | North Ayrshire (including Arran) |
| | | Activity for Health | | South Ayrshire |
| | | C.H.I.P Lifestyle Referral Scheme | | East Ayrshire |
| | | | Walk More Walking Group | Girvan |
| | | | CATCH Walking Group | Kilmarnock & around |
| Borders | None | None | None | |
| Dumfries & Galloway | | East ERS | | Annan, Langholm, Dumfries and Sanquhar |
| | | Exercise Referral | | Stranraer and Newton Stewart |
| | | | Better 4 Walking | Annandale and Eskdale |
| | | | Galloway Strollers | Stranraer, Wigtown |
| Fife | | Fife Sports Institute Referrals Programme | | Some areas of Fife |
| | | | Fife cardiac Rehab Scheme | Parts of Fife |
| | | | Bums off Seats | LA area |
| Forth Valley | | Active Forth | | Majority of the Falkirk LA area, with centres in Grangemouth, Bo'ness and Falkirk. |
| | | | Pedal 4th (secondary care) | Larbert and surrounding areas |
| | | | Active Stirling | Stirling Council area |
| | | | Walk About the Park | Callander |
| | | Peace of Mind Garden | Stirling | |
| Grampian | | Moray Exercise Referral | | Moray |
| | | | WalkMoray | Moray |
| | | | Cairngorms Walking to Health Project | Upper Deeside and Donside* |
| | | | Ardach Health Centre | Buckie |
| | | | ERS scheme | Banff/McDuff |
| | | | Cardiac Rehab | Grampian area |
| | Live Active | | | Glasgow City, East Dunbartonshire, West |

| HB area | Large schemes covering most of whole HB area | Schemes covering LA or several towns/cities | Smaller schemes covering one general practice/town/hospital; outdoor referral schemes, targeted schemes | Geographical coverage |
|------------------------------------|--|--|---|--|
| Greater Glasgow & Clyde | | | | Dunbartonshire, East Renfrewshire, Renfrewshire, Inverclyde |
| | | | Maryhill Allotment Group | Maryhill, Glasgow |
| | | | Renfrewshire walking network | Renfrewshire |
| | | | The Coach House Trust | Kelvinbridge, Knightswood, Yorkhill |
| | | | Acorn Project (secondary care) | Leverndale Hospital, Glasgow |
| | | Branching out (secondary and tertiary care) | Glasgow City, East Dunbartonshire, West Dunbartonshire, East Renfrewshire, Renfrewshire, Inverclyde | |
| Highland | | Argyll Active | | Bute, Islay, Helensburgh, Dunoon, Oban, Campbelltown |
| | | | Aquacare | Islay |
| | | | ERS | Invergordon |
| | | | ERS | Alness |
| | | | Restart | Kyle of Lochalsh |
| | | | Fitness referral scheme | Mallaig |
| | | | Fresh Start | Oban |
| | | | Cairngorms Walking to Health Project | Cairngorms and Upper Deeside and Donside* |
| | | Blarbuie Woodland Enterprise (secondary care) | Argyll and Bute Hospital | |
| Lanarkshire | | Get Active | | North Lanarkshire |
| | | Healthy Valleys | | Rural South Lanarkshire (Villages of Rigside, Douglas, Glespin, Coalburn, Douglas Water, Lesmahagow, Blackwood and Kirkmuirhill) |
| | | East Kilbride GP exercise referral scheme 'Leg It' | | East Kilbride & Strathaven |
| | | Life Active | | South Lanarkshire- Cambuslang and Rutherglen |
| | | | Motherwell Health Centre (females only) | Motherwell |
| Lothian | | Healthy Active Minds (mental health) | | Edinburgh LA area |
| | | Midlothian Healthy Active Choices | | Midlothian LA area |
| | | West Lothian ERS (now called First | | West Lothian LA area |

| HB area | Large schemes covering most of whole HB area | Schemes covering LA or several towns/cities | Smaller schemes covering one general practice/town/hospital; outdoor referral schemes, targeted schemes | Geographical coverage |
|-----------------------|--|--|---|---|
| Lothian (cont) | | Steps to Health and Wellbeing) | | |
| | | | Healthy Active Mums (post natal depression) | Edinburgh LA area |
| | | | Exercise After Stroke | Parts of Edinburgh |
| | | | Lifestyle Management for people with COPD (physio referral) | Edinburgh LA area |
| | | | Low Back Pain Exercise Referral (physio referral) | Dunbar, East Linton, Cockburnspath, North Berwick, Haddington |
| | | | Health All Round | Gorgie/Dalry |
| | | | Youth Exercise Referral Programme (referral by Occupational Therapy) | Royal Hospital for Sick Kids |
| | | | Move It Project | North West Edinburgh (Muirhouse, Pilton, Drylaw) |
| | | | South Edinburgh Strollers | South Edinburgh |
| | | | East Lothian Cardiac rehab | All of East Lothian |
| | | Healthy Moves exercise referral scheme | South West Edinburgh (Wester Hailes, Sighthill, Broomhouse areas) | |
| | | CHANGES Wellbeing Walks | Musselburgh & Haddington | |
| Orkney | None | None | None | |
| Shetland | None | None | None | |
| Tayside | | Angus Exercise Referral Programme | | Brechin, Montrose, Forfar, Kirrimuir, Arbroath and Carnoustie |
| | | Active for Life - Dundee ERS | | Dundee |
| | | Perth & Kinross Leisure Activity Referral Scheme | | Perth, Crieff, Kinross, Pitlochry and Aberfeldy. New provision will be developed in Coupar Angus and Blairgowrie between September 2009 and September 2010. |
| | | | Gateway Enterprises. Walled Garden & Wisecraft | Perth city & Blairgowrie. |
| | | | The Brae Riding Ability Centre | Dundee and surrounds |
| Western Isles | Spring Back to Health (although about to | | | Stornoway, Lewis & the Uists (not available in Barra but will be soon). |

| HB area | Large schemes covering most of whole HB area | Schemes covering LA or several towns/cities | Smaller schemes covering one general practice/town/hospital; outdoor referral schemes, targeted schemes | Geographical coverage |
|---------|--|---|---|------------------------|
| | rebrand) | | Walk On Hebrides | Parts of Western Isles |

*Single scheme where geographical coverage crosses two HB and two LA areas

Appendix 2: Schemes involving leisure centres by LA area

| Local authority | Name of Scheme(s) (<i>those in italics are targeted and/or outdoor schemes</i>) | Geographical coverage |
|-----------------------|--|--|
| 1 Aberdeen City | <i>Cardiac rehab only</i> | Aberdeenshire |
| 2 Aberdeenshire | ERS <i>Cardiac rehab only</i> <i>Cairngorms Walking to Health Project</i> | Banff and Macduff Aberdeenshire Deeside |
| 3 Angus | Angus Exercise Referral Programme | Brechin, Montrose, Forfar, Kirmuir, Arbroath and Carnoustie |
| 4 Argyll & Bute | Argyll Active Aquacare Freshstart <i>Blarbuie Woodland</i> | Bute, Islay, Helensburgh, Dunoon, Oban, Campbelltown Argyll and Bute Hospital, Lochgilphead |
| 5 Clackmannanshire | <i>Pedal 4th</i> | Forth Valley |
| 6 Dumfries & Galloway | Prescription for Health ERS <i>Galloway Strollers</i> <i>Better for Walking</i> | Stranraer, Newton Stewart, Annan, Langholm, Dumfries and Sanquhar Stranraer, Wigtown Annandale and Eskdale |
| 7 Dundee City | Active for Life <i>The Brae Riding Ability Centre</i> | LA area Dundee and surrounds |
| 8 East Ayrshire | C.H.I.P Lifestyle Referral Scheme <i>CATCH walking group</i> | LA area Kilmarnock |
| 9 East Dunbartonshire | Live Active <i>Branching out</i> | LA area LA Area |
| 10 East Lothian | <i>Low Back Pain ERS</i> <i>Cardiac rehab</i> <i>CHANGES Health Walks</i> | East Lothian East Lothian Musselburgh, Haddington |
| 11 East Renfrewshire | Live Active <i>Branching out</i> | LA area LA Area |
| 12 Edinburgh, City of | Healthy Active Minds <i>Healthy Active mums</i> <i>Exercise After Stroke</i> <i>Lifestyle Management for people with COPD</i> Healthy Moves exercise referral scheme Move It Project <i>Youth Exercise Referral Programme & Get Going</i> Health All Round South Edinburgh Strollers | LA area LA area Parts of LA Parts of LA SW Edinburgh North West Edinburgh Sick Kid's Hospital Gorgie/Dalry South Edinburgh |
| 13 Eilean Siar | Spring Back to Health <i>Walk on Hebrides</i> | LA area (not Barra) Parts of Western Isles |
| 14 Falkirk | Active Forth | LA area |
| 15 Fife | Fife Sports Institutes Referral Programme <i>Fife Cardiac Rehab Programme</i> <i>Bums off Seats</i> | Parts of Fife Parts of Fife LA area |
| 16 Glasgow City | Live Active <i>Branching out</i> | LA area LA Area |

| | | |
|------------------------|--|--|
| | <i>Maryhill Allotment project The Coach House Trust</i> | Maryhill Kelvinbridge, Knightswood, Yorkhill |
| 17 Highland | Restart ERS ERS ERS <i>Cairngorms Walking to Health Project*</i> | Kyle of Lochalsh Invergordon Alness Mallaig Badenoch and Strathspey |
| 18 Inverclyde | Live Active <i>Branching out</i> | LA area LA Area |
| 19 Midlothian | Midlothian Healthy Active Choices | LA area |
| 20 Moray | Moray Exercise Referral <i>WalkMoray</i> Ardach Health Centre ERS | LA area Buckie |
| 21 North Ayrshire | Active North Ayrshire | LA area (including Arran) |
| 22 North Lanarkshire | Get Active ERS | LA area Motherwell |
| 23 Orkney Islands | None | |
| 24 Perth & Kinross | Perth and Kinross LA referral Scheme <i>Gateway enterprises walled garden & wisecraft.</i> | Perth, Crieff, Kinross, Pitlochry and Aberfeldy Perth City and Blairgowrie |
| 25 Renfrewshire | Live Active <i>Branching out</i> <i>Renfrewshire walking network</i> | LA area |
| 26 Scottish Borders | None | |
| 27 Shetland Islands | None | |
| 28 South Ayrshire | Activity for Health <i>Walk More Walking Group</i> | LA area Girvan |
| 29 South Lanarkshire | Life Active Healthy Valleys East Kilbride GP exercise referral scheme 'Leg It' | Cambuslang and Rutherglen Rural South Lanarkshire (Villages of Rigside, Douglas, Glespin, Coalburn, Douglas Water, Lesmahagow, Blackwood and Kirkmuirhill) East Kilbride and Strathaven |
| 30 Stirling | <i>Active Stirling</i> <i>Walk about the Park</i> <i>Peace of mind garden</i> | Stirling Callander Stirling |
| 31 West Dunbartonshire | Live Active <i>Branching out</i> | LA area |
| 32 West Lothian | First steps to Health and Wellbeing | LA area |

*Single scheme where geographical coverage crosses two HB and two LA areas