

## **Audit of Exercise Referral Scheme activity in Scotland March 2010**

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## **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.<sup>1</sup> 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

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<sup>1</sup> 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 km<sup>2</sup> (30,414 sq mi).<sup>2</sup> 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))<sup>3</sup> in Scotland. Table 1 shows ISD data<sup>4</sup> 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 <sup>a,b</sup>	Population
<b>Scotland</b>	<b>1,014</b>	<b>5,493,023</b>
<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

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

<sup>3</sup> [http://www.rcgp.org.uk/pdf/ISS\\_FACT\\_06\\_KeyStats.pdf](http://www.rcgp.org.uk/pdf/ISS_FACT_06_KeyStats.pdf)

<sup>4</sup> [www.isdscotland.org/GPpracs&pops](http://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 2001<sup>5</sup> 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.

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<sup>5</sup> [www.bhfactive.org.uk/downloads/ex-ref-framework.pdf](http://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 14<sup>6</sup> 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.

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<sup>6</sup> 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
<b>Ayrshire &amp; Arran</b>	0	3	2	North Ayrshire (including Arran) South Ayrshire East Ayrshire	59	59 (100%)
<b>Borders</b>	0	0	0	No coverage	25	0 (0%)
<b>Dumfries &amp; Galloway</b>	0	2	2	Annan, Langholm, Dumfries, Sanquhar, Stranraer and Newton Stewart	35	13 (37%)
<b>Fife</b>	0	1	2	Some areas of Fife*	57	57*(100%)
<b>Forth Valley</b>	0	1	3	Majority of the Forth Valley LA Area, Some Stirling area	57	27 (47%)
<b>Grampian</b>	0	1	5**	Moray; Banff/Macduff; Aberdeenshire (mainly cardiac rehab )	83	16 (19%)
<b>Greater Glasgow &amp; Clyde</b>	1	0	5	Glasgow City, East & West Dunbartonshire, East Renfrewshire, Renfrewshire, Inverclyde	270	270 (100%)
<b>Highland</b>	0	1	8**	Bute, Islay, Helensburgh, Dunoon, Oban, Campbelltown, Alness, Kyle of Lochalsh, Invergordon,	102	22 (22%)
<b>Lanarkshire</b>	0	4	1	North Lanarkshire East Kilbride & Strathaven; Rural South Lanarkshire, Cambuslang, Rutherglen, Motherwell	98	86 (88%)
<b>Lothian</b>	0	3	11	LA areas of Edinburgh, Mid Lothian & West Lothian; Parts of East Lothian	124	108 (87%)
<b>Orkney</b>	0	0	0	No coverage	14	0 (0%)
<b>Shetland</b>	0	0	0	No coverage	10	0 (0%)
<b>Tayside</b>		3	2	Most areas of Tayside except Coupar Angus and Blairgowrie	68	64 (94%)
<b>Western Isles</b>	1	0	1	Stornoway, Lewis & the Uists (not in Barra but will be soon).	12	9 (75%)
<b>Total</b>	2	19	41**		<b>1014</b>	<b>712 (70%)</b>

\* 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<sup>#</sup> 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		
<b>Glasgow City</b>	LA area	Live Active	32	32 (100%)
<b>Highland</b>	Kyle of Lochalsh, Invergordon, Alness, Mallaig	Restart; ERS fitness referral scheme	11	4 (40%)
<b>Inverclyde</b>	LA area	Live Active	4	4 (100%)
<b>Midlothian</b>	LA area	Midlothian Healthy Active Choices	8	8 (100%)
<b>Moray</b>	LA area Buckie	Moray ERS; Ardach Health Centre ERS	7	7 (100%)
<b>North Ayrshire</b>	LA area (including Arran)	Active North Ayrshire	5	5 (100%)
<b>North Lanarkshire</b>	LA Area	Get Active	12	12 (100%)
<b>Orkney Islands</b>	None	None	2	0 (0%)
<b>Perth &amp; Kinross</b>	Perth, Crieff, Kinross, Pitlochry and Aberfeldy.	Perth and Kinross LA Referral Scheme	10	7 (70%)
<b>Renfrewshire</b>	LA area	Live Active	9	9 (100%)
<b>Scottish Borders</b>	None	None	12	0 (0%)
<b>Shetland Islands</b>	None	None	9	0 (0%)
<b>South Ayrshire</b>	LA area	Activity for Health	5	5 (100%)
<b>South Lanarkshire</b>	Cambuslang, Rutherglen East Kilbride & Strathaven	Life Active; EK Leg It	22	2 (9%)
<b>Stirling</b>	None	None	5	0 (0%)
<b>West Dunbartonshire</b>	LA area	Live Active	3	3 (100%)
<b>West Lothian</b>	LA area	First Steps to Health and Wellbeing	10	10 (100%)
<b>TOTAL</b>			<b>295</b>	<b>190 (64%)</b>

#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

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

\*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 4<sup>th</sup>'

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.

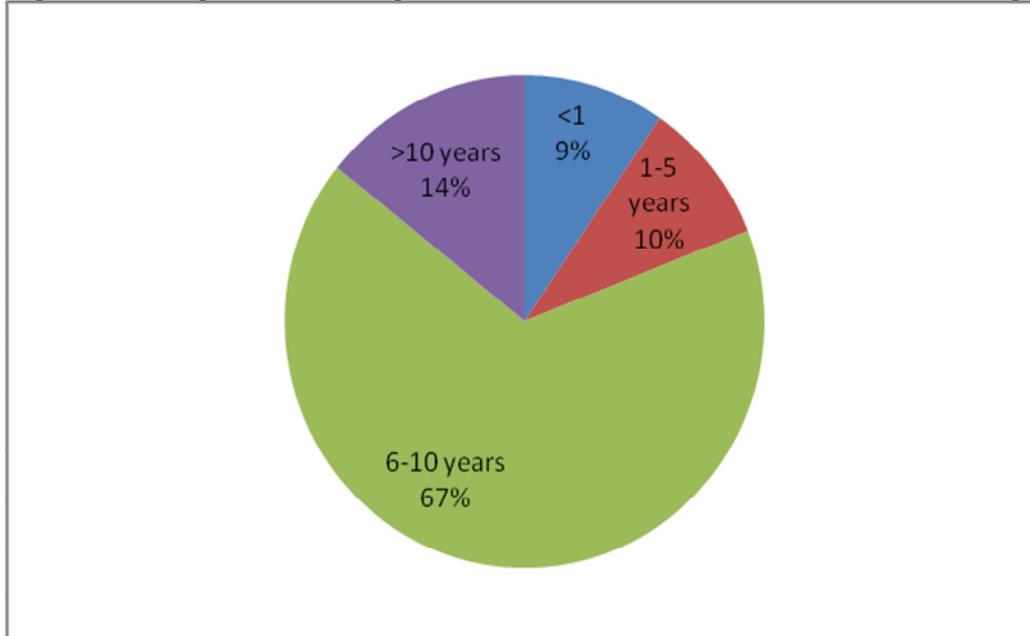
### **3.4 Type of activities provided by the schemes**

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

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## 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
<b>Ayrshire &amp; Arran</b>		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
<b>Borders</b>	None	None	None	
<b>Dumfries &amp; Galloway</b>		East ERS		Annan, Langholm, Dumfries and Sanquhar
		Exercise Referral		Stranraer and Newton Stewart
			Better 4 Walking	Annandale and Eskdale
			Galloway Strollers	Stranraer, Wigtown
<b>Fife</b>		Fife Sports Institute Referrals Programme		Some areas of Fife
			Fife cardiac Rehab Scheme	Parts of Fife
			Bums off Seats	LA area
<b>Forth Valley</b>		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	
<b>Grampian</b>		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
<b>Greater Glasgow &amp; Clyde</b>				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	
<b>Highland</b>		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	
<b>Lanarkshire</b>		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
<b>Lothian</b>		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
<b>Lothian (cont)</b>		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	
<b>Orkney</b>	None	None	None	
<b>Shetland</b>	None	None	None	
<b>Tayside</b>		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
<b>Western Isles</b>	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 4<sup>th</sup></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 &amp; 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 &amp; 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