Active for Later Life

Promoting physical activity with older people

A resource for agencies and organisations

Published by Health Scotland
Edinburgh Office:
Woodburn House
Canaan Lane
Edinburgh EH10 4SG

Written by:
BHF National Centre for Physical Activity and Health
Loughborough University
Ashby Road
Loughborough LE11 3TU
T 01509 223259
W www.bhfactive.org.uk

The information in this resource is not a substitute for the advice that the older person's doctor may give, based on his or her knowledge of the person's condition.

Contents

Introduction

Aim of Active for Later Life

There is growing evidence of the importance of physical activity for the older person, including the immediate and long-term physiological, psychological and social benefits, its importance in maintaining mobility and independence, and its importance particularly for certain conditions directly associated with old age.

The Active for Later Life resource aims to help all those involved in developing physical activity programmes for older people of all ages and abilities. It includes summaries of evidence and recommendations, and policy and strategic connections, as well as a series of working papers and practical guidance documents.

This resource has been adapted for use in Scotland from the Active for Later Life pack produced by the British Heart Foundation for practitioners working in England and Wales.

Who it is for

Active for Later Life has been adapted for use in Scotland by multi disciplinary teams with responsibility for health, social care and public service planning and delivery for people in later life and by those who have a role in health improvement, including the promotion of physical activity.
These include:

- community health partnerships,[1] including NHS boards, primary care practitioners, specialist services, health promotion teams, social care practitioners, joint future groups, local authorities, the voluntary sector and the public
- community planning partnerships,[2] including local authority departments (e.g. leisure and recreation services, social services, education and lifelong learning, transport regeneration and development), NHS boards, the voluntary sector and the public
- healthy living centres[3] and other lottery-funded initiatives, including voluntary sector and community organisations, NHS boards and local authorities
- the independent (voluntary and private) sectors, including the exercise and fitness industry
- national and local branches of age-related agencies
- residential and caring services, e.g. day centres and nursing homes
- community groups and organisations involved with older people.

How it can be used

The Active for Later Life resource can be used:

- as an advocacy tool by managers and commissioners of health and other services and by those involved in the strategic development of programmes for older people, and
- as a guide to planning, for a range of providers, to help increase opportunities for physical activity for older people.

You may wish to read the whole of the resource or just focus on those areas and topics that are more relevant to your circumstances. Each section can be used independently, but gives cross-references to other parts of the resource and to other key resources for further information:

 = Cross-references to other parts of pack

 = Key resources

What it contains

The pack contains the following sections:

Section 1: Making the case for physical activity in later life

Before you decide what action to take you may wish to examine the evidence related to this topic. Section 1 includes an evidence-based rationale for work to promote physical activity among older people. The rationale is based on the following elements:

- what is an older person?
- what is physical activity?
- why is physical activity important for the older person?
- how active are older people?
- physical activity recommendations for older people.

Section 2: Considerations for promoting physical activity in later life

Before you decide what interventions and programmes to develop you may wish to consider some of the issues surrounding this area. Section 2 includes information on:

- guiding principles and values
- the barriers for older people
- the evidence of effectiveness
- connections to national and local policy
- building alliances and partnerships
- which older people to target.

Section 3: The national and local policy context for physical activity in later life

This section provides policy context for work in this area.

Section 4: A planning and evaluation framework for physical activity in later life

This section provides information about a useful framework called LEAP (Learning, Evaluation and Planning) for Health, which can be applied to planning and evaluating the promotion of health and well-being programmes (such as those to promote physical activity in later life).

Section 5: Making the case for physical activity in later life

This section provides advice on planning a range of opportunities for older people of all ages, interests and abilities. It is divided into three areas, to match the framework outlined in section 2:

- Making Activity Choices (for those entering old age)
- Increasing The Circle Of Life (for those in the transition phase)
- Moving In The Later Years (for frailer older people).

Section 6: Physical activity and the prevention of falls in among people in later life

This section provides an overview of the role of physical activity in the prevention and management of falls in older people.

Working papers

This section contains four working papers that provide more detail on the following areas of development:

- Involving older people (working paper 1)
- Overcoming barriers (working paper 2)
- Physical activity and black and minority ethnic older people (working paper 3)
- Training for those working with older people (working paper 4).

Appendices

The appendices give further information on physical activity guidelines for older people and include a tool for identifying potential partners, a tool for auditing local provision, and sample evaluation tools.

Information directory

This gives details of training opportunities for those working with older people, further reading, and an A to Z of useful organisations.

Active for Later Life presentations CD

The Active for Later Life presentations CD contains two PowerPoint presentations – one on Making the case for physical activity in later life and one on Physical activity and the prevention of falls among older people – which you can use when making the case for introducing physical activity programmes for older people.

Examples of local programmes promoting physical activity among older people

There are many programmes operating across Scotland's local communities that promote physical activity with adults in later life. Here are the web addresses to just a few of them:

- the Healthy Living campaign: www.healthyliving.gov.uk/casestudies/
- Community health partnerships: www.scotland.gov.uk/Topics/Health/Care/Jointfuture/CHPs
- Community planning partnerships: www.scotland.gov.uk/Health/Care/Jointfuture/communityplanning
- Healthy living centres and other lottery-funded initiatives in Scotland: www.nof.org.uk

1 Community health patnerships: www.scotland.gov.uk/libary5/health/

2 Community planning partnerships: www.scotland.gov.uk/library5/localgov/

3 Healthy living centres and other lottery-funded initiatives in Scotland: www.nof.org.uk

1 Making the case for physical activity in later life

What is an older person?

The 'age' of a person may be considered a relative term. Chronological age is neither a reliable nor a desirable means of deciding when a person becomes 'old'. There are 'old' 50 year olds and 'young' 70 year olds, so old age is not a finite, homogeneous classification nor a useful descriptor. More often, self-identification may be more accurate and the preferred rule of thumb.

In health promotion and recreation provision, older people have traditionally been defined by organisations such as the World Health Organization, Age Concern and sports and recreation bodies as those over the age of 50. Improvements in health and longevity have resulted in a debate and additional thinking concerning the needs of those in the 'middle-aged years', those in their later years (75+) and those described as the 'oldest old'.

Significant variations in functional capacity among older people suggest that, at times, age-related targets or cohorts may be inappropriate for determining health needs and programme design. Many people aged 50+ have inactivity-related diseases and conditions, whereas many others participate in high levels of physical activity well into their later life, beyond the age of 80.

The Active for Later Life resource identifies a framework for working with older people aged 50+. The framework is organised into related and overlapping areas that may be helpful in the planning of national and/or local interventions. They not only relate to life stage, health status and functional capacity but also give an indication of policy frameworks and the range of professionals and service providers who may be involved at different stages. The three categories in the framework are:

- Making Activity Choices
- Increasing the Circle of Life
- Moving in the Later Years.

Making Activity Choices

This category relates to people who enjoy independent living but who may also be experiencing some functional decline.

The principal focus in this category is on encouraging and sustaining 'activity choices' to meet a wide range of physical, psychological and social needs. The role of physical activity for this group of older people includes disease prevention as well as providing opportunities for recreation and social activity.
Although there are significant variations, most people in this group are likely to be in the 50–70 age range.

Increasing the Circle of Life

This category relates to people in their later years who may still be living independently but who will be experiencing significant functional decline and a diminishing quality of life and who will be losing their independence and mobility, thus reducing their involvement in a range of physical and social activities.

Such an older person may be accessing a range of care and social services. The principal focus in this area is on 'increasing the circle of life', to reduce disability and to maintain mobility, independence and activities of daily living. Many people in this category will be within the 65–80 age range.

Moving in the Later Years

This category relates to people in their later years, perhaps over the age of 75, who are dependent and with very limited function.

They may have a number of diseases and impairments, such as dementia or arthritis, are sedentary for most of the time and need help with basic activities of daily living. The concept of recreation, play or leisure activities may, at times, be inappropriate and physical activity should be placed within a range of activities with purpose and meaning, designed to maintain the autonomy and dignity of the older person.

Other classifications

The categories described above relate closely to other classifications of older people – for example the World Health Organization classification in *The Heidelberg Guidelines for Promoting Physical Activity Among Older Persons*[1] or the hierarchy of physical function described by Spirduso[2] in 1995. These two classifications are outlined in the following sections.

World Health Organization Heidelberg Guidelines

Group 1: physically fit – healthy. These individuals regularly engage in appropriate physical activity. They can be described as physically fit and can participate in all activities of daily living.

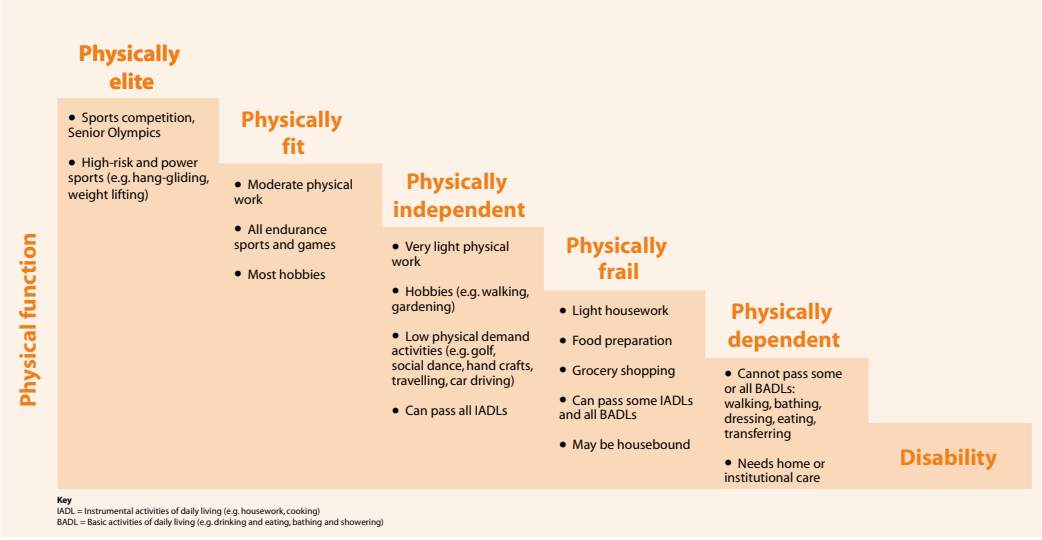
Group 2: physically unfit – healthy independent. These individuals are not engaged in physical activity. Although they are still living independently, they are beginning to develop chronic medical conditions that threaten their independence. Regular physical activity can improve functional capacity and prevent loss of independence.

Group 3: physically unfit frail – unhealthy dependent. These individuals are no longer able to function independently in society for a variety of physical and/or psychological reasons. Appropriate physical activity can significantly enhance their quality of life and restore independence in some areas of functioning.

Hierarchy of physical function

A hierarchy of physical function has been identified by Spirduso, which classifies older people as being physically elite, physically fit, physically independent, physically frail, physically dependent or physically disabled (Figure 1).

Fig. 1 ***Hierarchy of physical function of older people.***



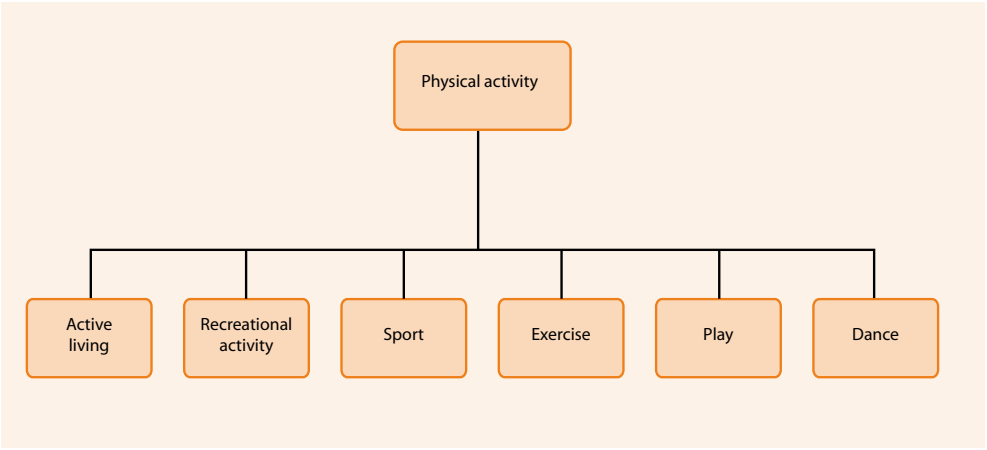
Although these classifications may provide a general description of the needs of older people, there are numerous examples of those who do not fall into any convenient category. Older people will continue to surprise us and confound our attempts to place them in convenient categories. We all age, but we all age differently.

What is physical activity?

The first international consensus statement on physical activity, fitness and health described physical activity as a general term and defined it as any movement of the body that uses energy[3] – it can be as simple as walking.

The Scottish physical activity strategy[4] described physical activity as a broad term that encompasses many components (see Figure 2) including exercise, sport, play, dance, recreational activity and active living such as walking, housework and gardening.

Fig. 2 ***The components of physical activity.***
From: Scottish Executive. Let's Make Scotland More Active. *Edinburgh: Scottish Executive; 2003*



Physical activity and health

We do get fitter as we become more active. But, the goal for good health is to increase the amount of physical activity that we do. In doing more physical activity we will develop the health-related areas of our fitness. These are cardiovascular fitness (our heart, lungs and circulatory systems), muscle strength and stamina, flexibility and body composition (percentage of body fat). There are also skill-related areas of fitness – power, speed, agility, coordination, balance and reaction time. These are not vital for good health but are important for sports performance.

Many people believe that only intense physical activity, such as going to an aerobics class or playing squash, will benefit their health. This is wrong. You can achieve health gains when you start to do activities that require effort at a moderate intensity, such as walking briskly, dancing, gardening or any activity that raises the heart rate enough to make you feel warm and breathe slightly faster.

Active living

There is an active and an inactive way to do everyday things, for example the way we travel, go about our daily tasks in the house and at work, and the choices we make to move around, such as taking the stairs instead of the lift. Choosing the active way helps to use up energy, mobilise the muscles and joints and gain health benefits.

Growing older doesn't have to mean being less active

Many people think it's natural to slow down and do less, simply because we are not as young as we used to be. But, for most of us, this simply isn't true. The main reason for slowing down is that we spend more and more of our day being inactive. Research has shown that people who are less active have much more trouble with simple tasks of daily living. Tasks such as taking the stairs or getting out of a chair without having to lean on something for support are more difficult.

The good news is that starting to be more active at any age not only improves health but also helps people cope better with the demands of everyday life.

What are the benefits of physical activity for adults in later life?

It is never too late to become more active; benefits can be gained from becoming more active, even in those who have previously been inactive until middle age or beyond.[5]

A growing body of evidence suggests that diseases and conditions such as coronary heart disease, stroke and diabetes, which are the primary cause of loss of function and independence in later life, are preventable and that physical activity can play an important part in risk reduction and prevention of these diseases. Physical activity also has important preventative and therapeutic effects on other issues pertinent to older people including preserving mobility, reducing the risk of falls and fractures, improving muscle strength and enhancing aspects of mental well-being and quality of life. The following sections outline the main benefits of physical activity for adults in later life, in terms of:

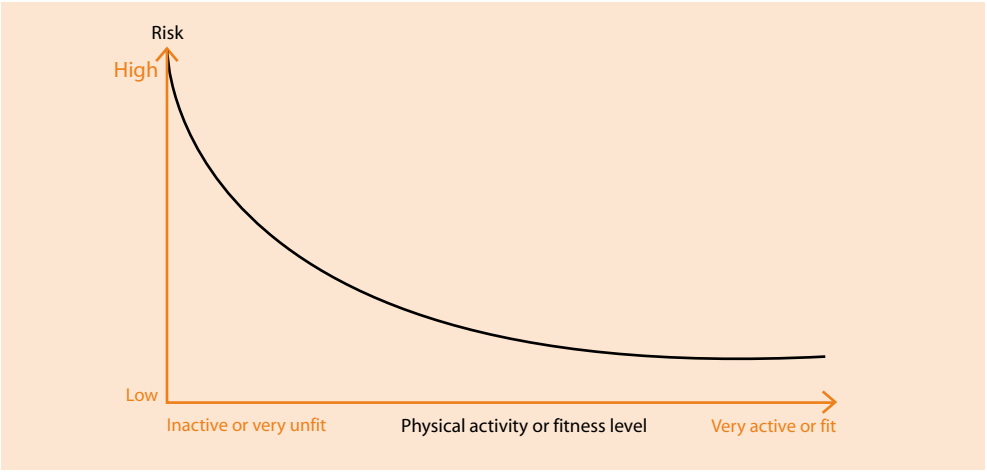
- disease prevention
- greater mobility, prevention of falls and fractures, and improved muscle strength
- enhanced well-being and quality of life.

Disease prevention

Becoming more active can bring substantial benefits. There is a clear dose–response relationship between physical activity and all-cause mortality and between physical activity and diseases such as coronary heart disease and type 2 diabetes: greater benefits occur with greater activity participation (Figure 3).

Fig. 3 ***Schematic representation of the dose–response relationship between physical activity level and risk of disease.***

This curvilinear dose–response curve generally holds for coronary heart disease and type 2 diabetes: the higher the level of physical activity or fitness, the lower the risk of disease. Curves for other diseases will become more apparent as the volume of evidence increases.



From a public health perspective, helping people to move from an inactive level to a low to moderately active level will produce the greatest reduction in risk. Being active at the recommended level reduces the risk of premature death by 20–30%. These considerable health benefits hold for both women and men and are evident even up to the age of 80 years.[6]

Preventive effects arising from regular physical activity in older age are at least as strong as those found in middle age for all-cause mortality,[7] cardiovascular disease[8] and type 2 diabetes.[9]

Coronary heart disease (CHD)

- Physical activity is a major independent protective factor against CHD.
- Inactive and unfit people have almost double the risk of dying from CHD as more active people.[10,11]
- The benefits of physical activity for cardiovascular disease appear to be just as strong for older people as they are for those in middle age.[12,13]

Why is this important for adults in later life in Scotland? It is estimated that 42% of all deaths from CHD in Scotland are attributable to physical inactivity.[14] Age is a significant risk factor for cardiovascular disease (including CHD and cerebrovascular disease). In general, the older you become, the greater the risk of suffering and eventually dying from cardiovascular disease. In 2003, approximately 85% of all CHD deaths occurred in people aged over 65.[15]

Stroke

Physical activity can reduce the incidence of stroke.[16–20]
People who are highly active have an approximately 27% lower risk of stroke incidence or mortality than less active people.[21] Similar results were seen in moderately active people compared with inactive people.

Why is this important for adults in later life in Scotland? Stroke is an illness predominantly affecting older people. It is estimated that 26% of all deaths from stroke in Scotland are attributable to physical inactivity.[22] In 2003, 91% of all cerebrovascular deaths occurred in people aged over 65.[23]

Risk factors for cardiovascular disease

Raised blood pressure

- High blood pressure (hypertension) can be both prevented and treated by physical activity.
- Being physically active is associated with reductions in both systolic (3.8 mmHg) and diastolic (2.6 mmHg) blood pressure.[24]

Why is this important for adults in later life in Scotland? Older people are more likely than younger people to have hypertension. Older people with hypertensive blood pressures have a higher risk of cardiovascular complications than younger hypertensives.[25]

Blood lipids

- There is considerable evidence that physical activity can help to improve blood lipid profiles and prevent adverse blood lipid profiles from developing.
- The main benefit appears to be improved levels of HDL cholesterol (the 'protective' cholesterol).[26]

Why is this important for adults in later life in Scotland? Among women the prevalence of raised cholesterol increases continuously with age, with a jump from 7.0% in those aged 35–44 to 43.3% in women aged 65–74.[27]

Insulin resistance

- Both resistance exercise and aerobic exercise have been shown to prevent and modify insulin resistance.[28,29]
- Improvements in glucose metabolism of between 11% and 36% can be expected. Further details are given in the section on type 2 diabetes.

Endothelial function

Regular physical activity has been shown to have a positive effect on the coronary circulation of individuals with coronary vascular disease through improved endothelial function. Similar improvements have also been seen in the peripheral circulation of those free of coronary vascular disease[31] and those with congestive heart failure.[32.]

Rehabilitation

- Exercise-based cardiac rehabilitation programmes for those with CHD are generally effective in reducing cardiac deaths and lead to important reductions in all-cause mortality.[33]
- Exercise therapy may be effective in the rehabilitation of stroke patients;[34,35] however, limited evidence currently exists.
- Exercise rehabilitation for those with peripheral vascular disease generally results in improved walking ability and ability to perform everyday tasks.[36,37]

Overweight and obesity

Being physically active on a regular basis will represent a significant increase in energy expenditure for most people, decrease fat mass and reduce the risk of substantial weight gain.[38–46]

For those who are overweight and obese, being physically active:

- brings important reductions in mortality and morbidity risks[47]
- helps maintain weight loss over several months or years
- provides a better chance of long-term success when included as part of a weight-loss plan.[48,49]

Why is this important for adults in later life in Scotland? Low levels of physical activity are a significant factor in the rise in the number of overweight and obese people in Scotland. It is estimated that 62% of men and 54% of women in Scotland are overweight or obese.[50] This puts them at an increased risk of cancer as well as osteoarthritis and back problems.

Type 2 diabetes

- Physical inactivity is a major risk factor for the development of type 2 diabetes.[51,52]
- Physically active people have a 33–50% lower risk of developing type 2 diabetes than inactive people.[53]

Why is this important for adults in later life in Scotland? It is estimated that 161,000 people in Scotland are affected by this condition (3.2%).[54] The prevalence of diabetes increases with age; in those aged 65–74, the rates for men and women are 8.3% and 5.8% respectively.[55] Type 2 diabetes accounts for almost 90% of all cases of diabetes. The number of cases of type 2 diabetes has been increasing and is estimated to double in the next 10–15 years.[56]

Cancer

- Physical activity is associated with a reduction in the overall risk of cancer. [57–59]
- To maximise protection against cancer, physical activity throughout the lifetime is important.[60]
- Physical activity has a clear protective effect on colon cancer. The most active individuals have, on average, a 40–50% lower risk than the least active.[61,62]
- Physical activity is associated with a reduced risk of breast cancer in women after the menopause. Women with higher levels of physical activity have about a 30% lower risk of breast cancer than the least active.[63–66]

Why is this important for adults in later life in Scotland? It is estimated that 25% of all deaths from colon cancer in Scotland are attributable to physical inactivity.[67] The prevalence of cancer increases with age, with 7.1% of men and 5.4% of women aged 65 and over living with a diagnosis of cancer.[68] Breast cancer is the most commonly occurring cancer in women in Scotland. Screening has recently been extended to include women up to age 70.

Mobility, falls, fractures and muscle strength

Mobility

Mobility declines with age; however, people with higher levels of lifestyle physical activity are more likely to maintain mobility and independent living and have reduced subsequent functional disability.[69]

Physical activity, particularly in the form of walking, can increase strength and aerobic capacity and reduce functional limitations.[70]

Why is this important for adults in later life in Scotland? The Allied Dunbar National Fitness Study[71] in 1990 found that 30% of all men and 60% of all women could not maintain a walking speed of 3 miles per hour when walking up a moderate slope.

Falls

- Physical activity – and particularly training to improve strength, balance and coordination – is highly effective in reducing the incidence of falls among people in later life.[72]
- Physical activity programmes combining strength, balance and endurance training reduced the risk of falling by 10%; programmes with balance training alone reduced the risk by 25%; however, ta'i chi has been shown to reduce the risk of falling by 47%.[73]

Why is this important for adults in later life in Scotland? Falls are a major cause of disability and the leading cause of mortality due to injury in older people aged over 75 in the UK.[74] Approximately 33% of people over 65 reported having a fall in the past year. This rate rises to 40% for those over 80 years old.

Fear of falling can provide a significant limitation to daily activities and osteoporosis can cause fear, anxiety and depression, particularly in women.[75]

Muscle strength and power

- Regular strength training using external weights or body weight (resistance exercises) has been shown to be highly effective in increasing or preserving muscle strength, even into very old age, which is important for tasks of daily living such as walking or getting up from a chair.[76]
- An increase in muscle strength is accompanied by improvements in functional mobility, such as walking speed.[77]

Why is this important for adults in later life in Scotland? Loss of muscle mass (sarcopenia) associated with ageing is one of the main causes of musculoskeletal frailty and reduced mobility in old age. Loss of muscle strength and loss of muscle power are consequences of sarcopenia. Muscle strength and muscle power are critical to perform the activities of daily living such as walking and getting up from a chair. In one survey[78] 12% of those older than 65 could not manage walking outside on their own and 9% could not manage stairs unaided. In another,[79] out of the over 70s, 25% of women and 7% of men did not have sufficient leg strength to get out of a chair without using their arms.

Bone health

- Physical activity in later life may delay the progression of osteoporosis as it slows down the rate at which bone mineral density is reduced; however, it cannot reverse advanced bone loss.[80]
- Physical activity programmes can help reduce the risk of falling, and therefore fractures, among older people.[81]
- Physical activity can help prevent osteoarthritis; daily physical activity, especially walking, may be associated with a lower risk of subsequent osteoarthritis, especially among women.[82]
- A broad range of physical activities can reduce pain, stiffness and disability, and increase general mobility, gait, function, aerobic fitness and muscle strength in older adults with osteoarthritis.[83]

Why is this important for adults in later life in Scotland? Between 1982 and 1998 the number of hip fractures sustained annually in Scotland by those over 55 years rose from just over 4000 to 5700, with 80% occurring in women.[84] It is estimated that 15–20% of such individuals with fractures will die within a year from causes related to the fracture.[85]

The health and social care costs of osteoporosis in the UK amount to £1.7 to £1.8 billion a year, with 85–95% of these costs resulting from hip fractures.[86]

Osteoarthritis is the most common joint disease in the UK. It is not an inevitable consequence of ageing but does appear to be strongly correlated with age. It is uncommon in those under 40 years of age.[87]

Well-being and quality of life

Emotional and mental well-being

- Physical activity can help improve the emotional and mental well-being of older people. It is associated with a reduced risk of developing depressive symptoms and can be effective in treating depression and enhancing mood.[88]
- Physical activity is effective in reducing clinical and non-clinical depression among older people.[89,90]
- Physical activity can reduce anxiety in older people[91] and enhance mood.[92]

Why is this important for adults in later life in Scotland? Mental health problems – particularly depression and dementia – are common in later life. Depression affects 3–5% of the over 65s at any point in time, with milder forms of mood disorder being present in another 10–15%.[93]

Enhancement of cognitive function and prevention of cognitive impairment

- Physical activity may improve at least some aspects of cognitive function that are important for tasks of daily living.[94]
- Physical activity is also associated with a reduced risk of developing problems of cognitive impairment in old age.[95,96]

Why is this important for adults in later life in Scotland? As people become older they have an increased risk of cognitive impairment such as confusion, dementia and Alzheimer's disease. About 5% of people above the age of 65 suffer from some form of dementia, a figure that rises to around 25% above the age of 85. The commonest form is Alzheimer's disease, accounting for about 60% of cases.[97]

Self-efficacy

- Physical activity programmes that aim to increase self-efficacy through a cognitive behavioural approach have been successful in changing behaviour.[98]

Why is this important for adults in later life in Scotland? Low self-efficacy for physical activity is one of the most important determinants of functional decline with chronic knee pain,[99] risk of falling[100] and future engagement in physical activities.[101]

Physical symptoms

Physical activity can have a beneficial effect on symptoms caused by several diseases, including:

- helping with joint pain for those with rheumatoid arthritis and knee osteoarthritis[102–104]
- helping with symptoms of breathlessness for those with chronic obstructive pulmonary disease[105,106]
- improving sleep for older people[107,108]increasing vigour and reducing fatigue in older people[109]
- having positive effects on energy and fatigue in those with heart failure[110] and chronic obstructive pulmonary disease.[111]

Social functioning

- Physical activity programmes involving people in later life can provide positive social benefits. Opportunities to meet people at similar life stages (possibly retired, widowed and having a smaller circle of friends) are important.[112,113]

- Remaining physically active in older age may offer opportunities for maintaining independence. Daily routines involving walking to local shops may mean less reliance on others while at the same time promoting social and community interaction.[114]

How much physical activity do adults in later life need?

Recommendations for general health benefit

For general health benefit adults should undertake at least 30 minutes of moderate physical activity on 5 or more days of the week. However, for all adults over the age of 55, including those who are frail, three sessions a week of strength and balance exercise is also recommended.
International research suggests that the recommendations for adults are also appropriate for adults in later life.
This recommendation was originally formulated in 1995 by a review of evidence and expert consensus produced by the American College of Sports Medicine and the Centers for Disease Control[115] and endorsed by the US Surgeon General.[116]
A report from the Chief Medical Officer in 2004 in England, which was based on a comprehensive review of evidence, suggests that no change to the general recommendation is necessary.[117]

This recommendation offers a simple and generic target for physical activity participation and should continue to provide the basis for general guidance for public health. It maximises both health impact and participation while minimising the risk.

The evidence shows that the general recommendation may need to be modified to meet the needs of preventing or treating specific diseases. The general recommendation is in itself sufficient to have a beneficial effect on cardiovascular disease, type 2 diabetes, mental health, musculoskeletal disorders and cancer.

Achieving the recommendation of at least 30 minutes of moderate intensity physical activity on 5 or more days of the week (a total of 150 minutes or 2% of a person's day) will represent a significant increase in energy expenditure for most people, and will contribute substantially to their weight management. However, for many people, and in the absence of a reduction in energy intake, 45–60 minutes of activity each day may be needed to prevent the development of obesity. People who have been obese and who have lost weight may need to do 60–90 minutes of activity a day to maintain their weight loss.[118]

Additional recommendations for adults in later life

The Chief Medical Officer's report also suggests that there are some important additional considerations for physical activity in later life:

- Older people should take particular care to keep moving and retain their mobility through daily activity.
- Specific activities that improve strength, coordination, flexibility and balance are particularly beneficial for older people, in addition to aerobic activities, which are beneficial for people of all ages.
- The choice of activities should be made in the light of an older person's functional limitations and symptoms of diseases.
- Regular walking remains extremely important for the maintenance of independence and activities of daily living.
- Low to moderate intensity activity can produce a health benefit for older people, possibly because of their relatively lower fitness levels. (Because of the ageing process, older people have reduced cardiorespiratory and muscle function; therefore, the absolute intensity of activities for older people can be lower than it is for younger adults.)
- As there is a greater risk of injury in older people, higher intensity activities, and activities that involve sudden or complicated movements, should be undertaken cautiously, unless the individual is already used to this type of exercise. Certain activities, such as frequently going up and down stairs, can aggravate some existing conditions such as osteoarthritis.

Moderate intensity activity

For general public health benefit the most appropriate activities are those of moderate intensity. Moderate intensity activity stimulates the body's cardiorespiratory, musculoskeletal and metabolic systems and, over time, causes them to adapt and become more efficient. In other words, the body gets fitter. The concept of 'moderate intensity activity' may not be widely understood. A person who is doing moderate intensity activity will usually experience:

- an increase in breathing rate
- an increase in heart rate, to the level where the pulse can be felt
- a feeling of increased warmth, possibly accompanied by sweating on hot or humid days.

A bout of moderate intensity activity can be continued for many minutes and does not cause exhaustion or extreme fatigue when continued for an extended period.

The amount of activity that a person needs to do to achieve an activity of moderate intensity varies from one individual to another. A person who is unfit

or overweight may only have to walk up a slope to experience these feelings. For older people who are not used to activity this could also be achieved with chair-based activity. Older people who have been inactive for some time may find that even a 10-minute walk may be beyond their functional capacity. In an activity such as walking it is important for an individual to focus on their perception of the effort that they need to make, rather than their speed.

Accumulating activity in shorter bouts

The recommended level of activity can be achieved either by carrying out all the daily activity in one session or by carrying out several shorter bouts of activity of 10 minutes or more. The activity can be lifestyle activity (lifestyle activity means activities that are performed as part of everyday life, such as climbing stairs or brisk walking) or structured exercise or sport, or a combination of these. Shorter bouts of physical activity offer an easier starting point for those who have been inactive for some time.

For most people, and particularly for those in later life, the easiest and most acceptable forms of physical activity are those that can be incorporated into everyday life.

Examples include:

- taking every small opportunity to be active, including taking the stairs and doing manual tasks such as active housework
- walking or cycling instead of travelling by car.

Additional ways for people in later life to meet the physical activity recommendations include undertaking:

- active leisure pursuits such as going for longer walks, biking or swimming
- active hobbies such as gardening or dancing
- social sporting activities such as bowls and golf.

The greatest public health gains can be made by moving inactive individuals towards the recommended activity level.[119] It is therefore important for recommendations and messages to emphasise that steady but successful progress towards higher levels of activity is an important goal. People in later life who are taking up activity for the first time, or rediscovering it after a period of inactivity, should be encouraged to build up gradually to the recommended level.

Of particular importance is the need to change the prevailing cultural and social norms regarding active lifestyles. There is a common myth that becoming inactive is a 'natural' part of our ageing process. There is no doubt that we age

biologically in ways that we cannot control; however, much of this ageing takes place faster than necessary because we lead largely inactive lives.

Strength

Regular strength training using external weights or body weight (resistance exercises) has been shown to be highly effective in increasing or preserving muscle strength, even into very old age, which is important for tasks of daily living such as walking or getting up from a chair.[120] Recommendations for strength training are:

- aim to do strengthening exercises for all major muscles groups on 2–3 days a week, with a day of rest between workouts
- aim to do two sets of four exercises with 10 repetitions for each exercise[121]
- healthy older adults who can achieve this level after a number of weeks should aim to progress by increasing the number of exercises in each set.

Strength-training exercises can be carried out at home or in a leisure centre, and can be supervised or unsupervised. A home-based exercise programme to improve muscle strength does not require any special equipment as the exercises can be carried out using everyday objects such as a chair, a wall or a step. Examples of exercises that can be performed as part of a home-based exercise programme include:

- wall press – this exercise works the muscles of the arms and chest
- single leg lifts – this exercise works the leg (thigh) muscles
- arm curls – this exercise works the upper arm (biceps) muscles
- knee lifts – this exercise works the leg (thigh) muscles
- side leg raise – this exercise works the inner leg muscles
- side arm raise – this exercise works the shoulder muscles
- assisted knee bends – this exercise works the leg (thigh) muscles.

Flexibility

Stretching helps keep the body supple and flexible and can help maintain the range of movement in the joints. Good flexibility helps people perform simple tasks of daily life such as reaching and bending. Recommendations for maintaining flexibility are:

- stretch all of the major muscle groups through their full range of movement on at least 5 days of the week
- aim to hold the stretched position for 8–10 seconds
- perform flexibility exercises before and after strengthening or aerobic activities.[122]

Balance

Physical activity – and particularly training to improve strength, balance and coordination – is highly effective in reducing the incidence of falls among people in later life.[123] Recommendations for improving balance include:

- incorporating balance exercises into strength-training exercises, for example lower body exercises for strength that require standing are also balance exercises
- t'ai chi exercises.[124]

Bone health

Physical activity in later life may delay the progression of osteoporosis as it slows down the rate at which bone mineral density is reduced. However, it cannot reverse advanced bone loss.[125] The aim of a physical activity programme for those who have osteoporosis but who have not sustained fractures is to maintain bone strength, prevent fractures, improve muscle strength, balance and posture and reduce the risk of falling. The types of activities recommended include:

- weight-bearing activities
- site-specific strength training.

For those who have osteoporosis and have sustained fractures the aim of a physical activity programme is to prevent further fractures, improve muscle strength, balance and posture, reduce the risk of falling and reduce and control pain. The types of activities recommended include:

- low-intensity, low-impact activities such as chair-based aerobics and water aerobics
- strength training using short levers and body resistance.

Those at a higher risk of osteoporosis should avoid the following activities:

- high-impact activities
- trunk flexion
- trunk rotational torsion movements with loading (lifting)
- pelvic floor stress.

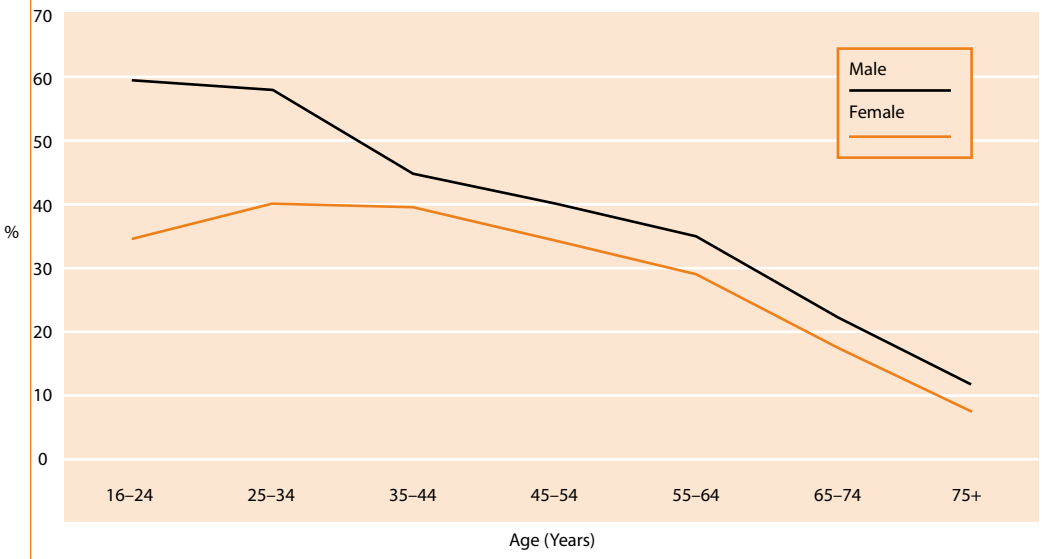
Motivations

It is important that activity should provide benefits for the individual in terms of well-being – for example improved mood, a sense of achievement, relaxation or simply release from daily stress. Opportunities to meet people at similar life stages, particularly for people in later life (possibly retired, widowed and having a smaller circle of friends), are also important. It is these outcomes more than the physical health benefits that improve adherence to activity patterns and ensure that the health benefits are maintained in the long term.

How active are adults in later life?

The Scottish Health Survey[126] shows that most people in Scotland are not active enough (Figure 4).

Fig. 4 ***Percentage of the population reaching the recommended level of physical activity*****. From: Scottish Executive.** ***The Scottish Health Survey*****. Edinburgh: Scottish Executive; 1998.**



The proportion of the population reaching the recommended level of physical activity varies by age, stage of life and sex. For women, activity drops sharply at 12–13 years, levels off from 14–35 years and then declines sharply throughout later life. For men, there is a more gradual decline in activity starting at 10–11 years and continuing for life.

A closer look at the graph in Figure 4 shows that there are few active older people in Scotland:

- Of those aged between 55 and 64, 65% of men and 72% of women fall short of the recommended level of physical activity for general health benefit.
- Inactivity among those aged between 65 and 74 is even greater, with 84% of women and 77% of men failing to meet the recommended level.
- At 75+, 87% of men are inactive with women even more so at 94%.

Within this general picture of inactivity is a major issue of health inequality. The proportion of sedentary adults (doing 30 minutes or less of physical activity on one day a week or not at all) from the lowest socioeconomic groups is double that from the highest socioeconomic groups.

Summary

- It is never too late to become more active. People can gain benefits from becoming more active even if they have previously been inactive until middle age or beyond.
- The Scottish Health Survey (2003) reported that most people in Scotland are not active enough.
- Physical activity in later life has important preventative and therapeutic benefits including disease prevention, greater mobility, falls and fracture prevention, improved muscle strength and enhanced well-being and quality of life.
- For general health benefit adults should undertake at least 30 minutes of at least moderate intensity physical activity on 5 or more days of the week.
- Specific activities that improve strength, coordination, flexibility and balance are particularly beneficial for older people.
- The recommended levels of activity can be achieved either by carrying out all of the daily activity in one session or by carrying out several shorter bouts of activity of 10 minutes or more.
- For most people, and particularly for those in later life, the easiest and most acceptable forms of physical activity are those that can be incorporated into everyday life.
- Regular walking remains extremely important for the maintenance of independence and activities of daily living.
- Psychosocial outcomes rather than the physical health benefits are more likely to help improve adherence to activity patterns and ensure that the health benefits are maintained in the long term.

1 World Health Organization. *The Heidelberg Guidelines for Promoting Physical Activity Among Older Persons.* Geneva: World Health Organization; 1997.

2 Spirduso WW. *Physical Dimensions of Aging*. Champaign, IL: Human Kinetics; 1995.

3 Bouchard C, Shephard RJ, Stephens T, Sutton RJ, McPherson BD. Exercise, *Fitness and Health – A Consensus of Current Knowledge.* Champaign, IL: Human Kinetics; 1990.

4 Scottish Executive. *Let's Make Scotland More Active.* Edinburgh: Scottish Executive; 2003.

5 Paffenbarger RS, Hyde RT, Wing AL, Lee I-M, Jung DL, Kampert JB. The association of changes in physical activity level and other lifestyle characteristics with mortality among men. *New England Journal of Medicine* 1993; 328: 538–545.

6 Lee IM, Skerrett PJ. Physical activity and all cause mortality: what is the dose–response relation? *Medicine and Science in Sports and Exercise* 2001; 33: S459–S471; discussion S493–S494.

7 Lee IM, Skerrett PJ. Physical activity and all cause mortality: what is the dose–response relation? *Medicine and Science in Sports and Exercise* 2001; 33: S459–S471; discussion S493–S494.

8 Talbot LA, Morrell CH, Metter EJ, Fleg JL. Comparison of cardiorespiratory fitness versus leisure time physical activity as predictors of coronary events in men aged ≤65 years and >65 years. *American Journal of Cardiology* 2002; 89: 1187–1192.

9 Diabetes Prevention Program Research Group. Reduction in the incidence of type 2 diabetes with lifestyle intervention of metformin. *New England Journal of Medicine* 2002; 346: 393–403.

10 Berlin JA, Colditz A. A meta-analysis of physical activity in the prevention of coronary heart disease. *American Journal of Epidemiology* 1990; 132: 612–627.

11 Powell KE, Thompson PD, Caspersen CJ, Kendrick KS. Physical activity and the incidence of coronary heart disease. *Annual Review of Public Health* 1987; 8: 281–287.

12 Batty GD. Physical activity and coronary heart disease in older adults. A systematic review of epidemiological studies. *European Journal of Public Health* 2002; 12: 171–176.

13 Manson JE, Greenland P, LaCroix AZ, Stefanick ML, Mouton CP, Oberman A, et al. Walking compared with vigorous exercise for the prevention of cardiovascular events in women. *New England Journal of Medicine* 2002; 347: 716–725.

14 Scottish Executive. *The Economic Benefits of a Physical Activity Strategy for Scotland*. Edinburgh: Scottish Executive; 2002. Available online: www.show.scot.nhs.uk/sehd/PATF/Index.htm

15 General Register Office for Scotland. *Table P5, Deaths by Sex, Age and Cause, Scotland, 2003*. xx: xx; 2004.

16 Wannamethee SG, Shaper AG. Physical activity in the prevention of cardiovascular disease: an epidemiological perspective. *Sports Medicine* 2001; 31: 101–114.

17 Kohl HW III. Physical activity and cardiovascular disease: evidence for a dose response. *Medicine and Science in Sports and Exercise* 2001; 33: S472–S483; discussion S493–S494.

18 Wannamethee SG, Shaper AG. Physical activity and the prevention of stroke. *Journal of Cardiovascular Risk* 1999; 6: 213–216.

19 Kohl HW III, Mckenzie JD. Physical activity, physical fitness and stroke. In: Bouchard C, Shephard RJ, Stevens TM (eds). *Physical Activity, Fitness and Health: International Proceedings and Consensus Statement*. Champaign, IL: Human Kinetics; 1994: pp. xx–xx.

20 Lee CD, Folsom AR, Blair SN. Physical activity and stroke risk: a meta-analysis. *Stroke* 2003; 34: 2475–2481.

21 Scottish Executive. *The Economic Benefits of a Physical Activity Strategy for Scotland.* Edinburgh: Scottish Executive; 2002. Available online: www.show.scot.nhs.uk/sehd/PATF/Index.htm

22 Scottish Executive. *The Economic Benefits of a Physical Activity Strategy for Scotland*. Edinburgh: Scottish Executive; 2002. Available online: www.show.scot.nhs.uk/sehd/

23 Manson JE, Greenland P, LaCroix AZ, Stefanick ML, Mouton CP, Oberman A, et al. Walking compared with vigorous exercise for the prevention of cardiovascular events in women. *New England Journal of Medicine* 2002; 347: 716–725.

24 Whelton SP, Chin A, Xin X, He J. Effect of aerobic exercise on blood pressure: a meta-analysis of randomized, controlled trials. *Annals of Internal Medicine* 2002; 136: 493–503.

25 Scottish Intercollegiate Guidelines Network (SIGN). *Hypertension in Older People*. SIGN publication No. 49. Edinburgh: SIGN; 2001.

26 Durstine JL, Grandjean PW, Davis PG, Ferguson MA, Alderson NL, DuBose KD. Blood lipid and lipoprotein adaptations to exercise: a quantitative analysis. *Sports Medicine* 2001; 31: 1033–1062.

27 Scottish Executive. *The Scottish Health Survey*. Edinburgh: Scottish Executive; 1998.

28 Ryan AS. Insulin resistance with aging: effects of diet and exercise. *Sports Medicine* 2000; 30: 327–346.

29 Wallace MB, Mills BD, Browning CL. Effects of cross-training on markers of insulin resistance/hyperinsulinemia. *Medicine and Science in Sports and Exercise* 1997; 29: 1170–1175.

30 Hambrecht R, Wolf A, Gielen S, Linke A, Hofer J, Erbs S, et al. Effect of physical exercise on coronary endothelial function in coronary artery disease. *New England Journal of Medicine* 2000; 342: 454–460.

31 Clarkson P, Montgomery HE, Mullen MJ, Donald AE, Powe JA, Bull T, et al. Exercise training enhances endothelial function in young men. *Journal of the American College of Cardiology* 1999; 33: 1379–1385.

32 Linke A, Schoene N, Gielen S, Hofer J, Erbs S, Schuler G, et al. Endothelial dysfunction in patients with chronic heart failure: systemic effects of lower-limb exercise training. *Journal of the American College of Cardiology* 2001; 37: 392–397.

33 Jolliffe JA, Rees K, Taylor RS, Thompson D, Oldridge N, Ebrahim S. Exercise-based rehabilitation for coronary heart disease [Cochrane review]. *The Cochrane Library* Issue 1. Oxford: Update Software; 2004.

34 Andersen HE, Jurgensen KS, Boysen G. Intervention for apoplexy patients discharged from hospital. Physical training: a literature review. *Ugeskrift for Laeger* 2001; 163: 1255–1259.

35 van der Lee JH, Snels IA, Beckerman H, Lankhorst GJ, Wagenaar RC, Bouter LM. Exercise therapy for arm function in stroke patients: a systematic review of randomized controlled trials. *Clinical Rehabilitation* 2001; 15: 20–31.

36 Regensteiner JG, Hiatt WR. Exercise rehabilitation for patients with peripheral arterial disease. *Exercise and Sport Sciences Reviews* 1995; 23: 1–24.

37 Regensteiner JG, Hiatt WR. Exercise rehabilitation for patients with peripheral arterial disease. *Exercise and Sport Sciences Reviews* 1995; 23: 1–24.

38 Schulz LO, Schoeller DA. A compilation of total daily energy expenditures and body weights in healthy adults. *American Journal of Clinical Nutrition* 1994; 60: 676–681.

39 Westerterp KR, Goran MI. Relationship between physical activity related energy expenditure and body composition: a gender difference. *International Journal of Obesity* 1997; 21: 184–188.

40 Martínez-González MÁ, Martínez JA, Hu FB, Gibney MJ, Kearney J. Physical inactivity, sedentary lifestyle and obesity in the European Union. *International Journal of Obesity* 1999; 23: 1192–1201.

41 Brown WJ, Miller YD, Miller R. Sitting time and work patterns as indicators of overweight and obesity in Australian youth. *International Journal of Obesity* 2003; 27: 1340–1346.

42 Fogelholm M, Kukkonen-Harjula K. Does physical activity prevent weight gain – a systematic review. *Obesity Reviews* 2000; 1: 95–111.

43 Di Pietro L, Kohl HW III, Barlow CE, Blair SN. Improvements in cardiorespiratory fitness attenuate age-related weight gain in healthy men and women: the Aerobics Center Longitudinal Study. *International Journal of Obesity* 1998; 22: 55–62.

44 Di Pietro L. Physical activity in the prevention of obesity: current evidence and research issues. *Medicine and Science in Sports and Exercise* 1999; 31: S542–S546.

45 Drøyvold WB, Holmen J, Midthjell K, Lydersen S. BMI change and leisure time physical activity (LTPA): an 11-y follow-up study in apparently healthy men aged 20-69y with normal weight at baseline. *International Journal of Obesity* 2004; 28: 410–417.

46 Peterson L, Schnor P, Sorenson TIA. Longitudinal study of the long-term relationship between physical activity and obesity in adults. *International Journal of Obesity* 2004; 28: 105–112.

47 Wei M, Kampert JB, Barlow CE, Nichaman MZ, Gibbons LW, Paffenbarger R Jr, et al. Relationship between low cardiorespiratory fitness and mortality in normal-weight, overweight, and obese men. *Journal of the American Medical Association* 1999; 282:1547–1553.

48 Wing RR. Physical activity in the treatment of the adulthood overweight and obesity: current evidence and research issues. *Medicine and Science in Sports and Exercise* 1999; 31: S547–S552.

49 Klem ML, Wing RR, McGuire MT, Seagle HM, Hill JO. A descriptive study of individuals successful at long-term maintenance of substantial weight loss. *American Journal of Clinical Nutrition* 1997; 66: 239–246.

50 Scottish Intercollegiate Guidelines Network (SIGN). *Hypertension in Older People.* SIGN publication No. 49. Edinburgh: SIGN; 2001.

51 USA Department of Health and Human Services. *Physical Activity and Health: A Report of the Surgeon General.* Pittsburgh, PA: USA Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion; 1996.

52 Kelley DE, Goodpaster BH. Effects of exercise on glucose homeostasis in type 2 diabetes mellitus. *Medicine and Science in Sports and Exercise* 2001; 33: S495–S501.

53 Lynch J, Helmrich SP, Lakka TA, Kaplan GA, Cohen RD, Salonen R, et al. Moderately intense physical activities and high levels of cardiorespiratory fitness reduce the risk of non-insulin-dependent diabetes mellitus in middle-aged men. *Archives of Internal Medicine* 1996; 156: 1307–1314.

54 Scottish Diabetes Survey Monitoring Group. *Scottish Diabetes Survey* 2002. xx: Scottish Executive; 2003.

55 Scottish Intercollegiate Guidelines Network (SIGN). *Hypertension in Older People*. SIGN publication No. 49. Edinburgh: SIGN; 2001.

56 Lynch J, Helmrich SP, Lakka TA, Kaplan GA, Cohen RD, Salonen R, et al. Moderately intense physical activities and high levels of cardiorespiratory fitness reduce the risk of non-insulin-dependent diabetes mellitus in middle-aged men. *Archives of Internal Medicine* 1996; 156: 1307–1314.

57 Thune I, Furberg A-S. Physical activity and cancer risk: dose-response and cancer, all sites and site-specific. *Medicine and Science in Sports and Exercise* 2001; 33: S530–S550.

58 Wannamethee SG, Shaper AG, Walker M. Physical activity and risk of cancer in middle-aged men. *British Journal of Cancer* 2001; 85: 1311–1316.

59 Lee CD, Blair SN. Cardiorespiratory fitness and smoking-related and total cancer mortality in men. *Medicine and Science in Sports and Exercise* 2002; 34: 735–739.

60 Thune I, Furberg A-S. Physical activity and cancer risk: dose-response and cancer, all sites and site-specific. *Medicine and Science in Sports and Exercise* 2001; 33: S530–S550.

61 Thune I, Furberg A-S. Physical activity and cancer risk: dose-response and cancer, all sites and site-specific. *Medicine and Science in Sports and Exercise* 2001; 33: S530–S550.

62 Friedenreich CM. Physical activity and cancer prevention: from observational to intervention research. *Cancer Epidemiology Biomarkers and Prevention* 2001; 10: 287–301.

63 Thune I, Furberg A-S. Physical activity and cancer risk: dose-response and cancer, all sites and site-specific. *Medicine and Science in Sports and Exercise* 2001; 33: S530–S550.

64 Friedenreich CM. Physical activity and cancer prevention: from observational to intervention research. *Cancer Epidemiology Biomarkers and Prevention* 2001; 10: 287–301.

65 McTiernan A, Kooperberg C, White E, Wilcox S, Coates R, Adams-Campbell LL, et al. Recreational physical activity and the risk of breast cancer in postmenopausal women: the women's health initiative cohort study. *Journal of the American Medical Association* 2003; 290: 1331–1336.

66 Dorn J, Vena J, Brasure J, Freudenheim J, Graham S. Lifetime physical activity and breast cancer risk in pre- and postmenopausal women. *Medicine and Science in Sports and Exercise* 2003; 35: 278–285.

67 Scottish Executive. *The Economic Benefits of a Physical Activity Strategy for Scotland*. Edinburgh: Scottish Executive; 2002. Available online: www.show.scot.nhs.uk/sehd

68 NHS National Services Scotland Information Services Division. *An Update of Incidence, Lifetime rIsk and Prevalence Statistics for Patients with Cancer in Scotland*. Edinburgh; 2004.

69 Bean JF, Leveille SG, Kiely DK, Bandinelli S, Guralnik JM, Ferrucci L. A comparison of leg power and leg strength within the InCHIANTI study: which influences mobility more? *Journals of Gerontology Series A, Biological Sciences and Medical Sciences* 2003; 58: 728–733.

70 Keysor JJ. Does late-life physical activity or exercise prevent or minimize disablement? A critical review of the scientific evidence. *American Journal of Preventive Medicine* 2003; 3(Suppl. 2): 129–136.

71 *Allied Dunbar National Fitness Survey.*

72 Gillespie LD, Gillespie WJ, Robertson MC, Lamb SE, Cumming RG, Rowe BH.Interventions for preventing falls in elderly people [Cochrane review]. *The Cochrane Library* Issue 1. Oxford: Update Software; 2004.

73 Province MA, Hadley EC, Hornbrook MC, Lipsitz LA, Miller JP, Mulrow CD, et al. The effects of exercise on falls in elderly patients: a pre-planned meta-analysis of the FICSIT trials. *Journal of the American Medical Association* 1995; 273: 1341–1347.

74 National Institute for Clinical Excellence. *Falls – Clinical Guideline*. Second consultation. London: National Institute for Clinical Excellence; 2004. Available online: www.nice.org.uk 22 April 2004

75 Salkeld G, Cameron ID, Cumming RG, Easter S, Seymour J, Kurrle SE, et al. Quality of life related to fear of falling and hip fracture in older women: a time trade off study. *British Medical Journal* 2000; 320: 341–345.

76 Narici MV. Structural and functional adaptations to strength training in the elderly. In: Capodaglio P, Narici MV, (eds). *Advances in Rehabilitation.* Pavia, Italy: PI-ME Press; 2000: pp.55–60.

77 Fiatarone MA, Marks EC, Ryan ND, Meredith CN, Lipsitz LA, Evans WJ. High-intensity strength training in nonagenarians. Effects on skeletal muscle. *Journal of the American Medical Association* 1990; 263: 3029–3034.

78 Office for National Statistics. *People Aged 65 and Over: Results of a Study Carried Out on Behalf of the Department of Health as Part of the 1998 General Household Survey*. London: The Stationery Office; 2000.

79 Skelton DA, Young A, Walker A, Hoinville E. *Physical Activity in Later Life: Further Analysis of the Allied Dunbar National Fitness Survey and the Health Education Authority National Survey of Activity and Health*. London: Health Education Authority; 1999.

80 Vuori IM. Dose-response of physical activity and low back pain, osteoarthritis, and osteoporosis. *Medicine and Science in Sports and Exercise* 2001; 33: S551–S586; discussion S609–S610.

81 Copper C, Barker DJ, Wickham C. Physical activity, muscle strength and calcium intake in fracture of the proximal femur in Britain. *British Medical Journal* 1988; 297: 1443–1446.

82 Rogers LQ, Macera CA, Hootman JM, Ainsworth BE, Blair SN. The association between joint stress from physical activity and self-reported osteoarthritis: an analysis of the Cooper Clinic data. *Osteoarthritis and Cartilage* 2002; 10: 617–622.

83 Ettinger WH Jr, Burns R, Messier SP, Applegate W, Rejeski WJ, Morgan T, et al. A randomized trial comparing aerobic exercise and resistance exercise with a health education program in older adults with knee osteoarthritis. The Fitness Arthritis and Seniors Trial (FAST). *Journal of the American Medical Association* 1997; 277: 25–31.

84 Scottish Intercollegiate Guidelines Network (SIGN). *Prevention and Management of Hip Fracture on Older People*. SIGN publication No. 56. Edinburgh: SIGN; 2002.

85 Keene GS, Parker MJ, Pryor GA. Mortality and morbidity after hip fractures. *British Medical Journal* 1993; 307: 1248–1250.

86 Burge R. The cost of osteoporotic fractures in the UK: projections for 2000–2020. Journal of *Medical Economics* 2001; 4: 51–62.

87 Arthritis Care. *Osteoarthritis: A Guide*, 1st edn. London: Arthritis Care; 2003.

88 Strawbridge WJ, Deleger S, Roberts RE, Kaplan GA. Physical activity reduces the risk of subsequent depression for older adults. *American Journal of Epidemiology* 2002; 156: 328–334.

89 Mutrie N. The relationship between physical activity and clinically defined depression. In: Biddle SJH, Fox KR, Boutcher SH (eds). *Physical Activity and Psychological Well-being.* London: Routledge; 2000: pp.46–62.

90 Penninx BW, Rejeski WJ, Pandya J, Miller ME, Di Bari M, Applegate WB, et al. Exercise and depressive symptoms: a comparison of aerobic and resistance exercise effects on emotional and physical function in older persons with high and low depressive symptomatology. *Journals of Gerontology Series A, Biological Sciences and Medical Sciences* 2002; 57: 124–132.

91 Taylor AH. Physical activity, anxiety, and stress: a review. In: Biddle SJH, Fox KR, Boutcher SH (eds). *Physical Activity and Psychological Well-being*. London: Routledge; 2000: pp.10–45.

92 Arent SM, Landers DM, Etnier JL. The effects of exercise on mood in older adults: a meta-analytic review. *Journal of Aging and Physical Activity 2000*; 8: 407–430.

93 Scottish Executive. Adding Life to Years: *Report on the Expert Group on Health Care of Older People*. Edinburgh: Scottish Executive; 2002.

94 Colcombe S, Kramer AF. Fitness effects on the cognitive function of older adults: a meta-analytic study. *Psychological Science 2003*; 14: 125–130.

95 McDowell I. Alzheimer's disease: insights from epidemiology. *Aging* 2001; 13: 143–162.

96 Schuit AJ, Feskens EJ, Launer LJ, Kromhout D. Physical activity and cognitive decline, the role of the apolipoprotein e4 allele. *Medicine and Science in Sports and Exercise* 2001; 33: 772–777.

97 Schulz LO, Schoeller DA. A compilation of total daily energy expenditures and body weights in healthy adults. *American Journal of Clinical Nutrition* 1994; 60: 676–681.

98 McAuley E, Blissmer B. Self-efficacy determinants and consequences. *Exercise and Sport Science Reviews* 2000; 28: 85–88.

99 Rejeski WJ, Miller ME, Foy C, Messier S, Rapp S. Self-efficacy and the progression of functional limitations and self-reported disability in older adults with knee pain. *Journals of Gerontology Series A, Biological Sciences and Medical Sciences* 2001; 56: S261–S265.

100 Tinetti ME, Speechley M, Ginter SF. Risk factors for falls among elderly persons living in the community. *New England Journal of Medicine* 1988; 319: 1701–1707.

101 McAuley E, Blissmer B. Self-efficacy determinants and consequences. *Exercise and Sport Science Reviews* 2000; 28: 85–88.

102 Vuori IM. Dose-response of physical activity and low back pain, osteoarthritis, and osteoporosis. *Medicine and Science in Sports and Exercise* 2001; 33: S551–S586; discussion S609–S610.

103 Ettinger WH Jr, Burns R, Messier SP, Applegate W, Rejeski WJ, Morgan T, et al. A randomized trial comparing aerobic exercise and resistance exercise with a health education program in older adults with knee osteoarthritis. The Fitness Arthritis and Seniors Trial (FAST). *Journal of the American Medical Association* 1997; 277: 25–31.

104 Miller ME, Rejeski WJ, Messier SP, Loeser RF. Modifiers of change in physical functioning in older adults with knee pain: the Observational Arthritis Study in Seniors (OASIS). *Arthritis and Rheumatism* 2001; 45: 331–339.

105 King AC, Pruitt LA, Phillips W, Oka R, Rodenburg A, Haskell WL. Comparative effects of two physical activity programs on measured and perceived physical functioning and other health-related quality of life outcomes in older adults. Journals of Gerontology Series *A, Biological Sciences and Medical Sciences* 2000; 55: M74–M83.

106 Rejeski WJ, Brawley LR, Shumaker SA. Physical activity and health-related quality of life. *Exercise and Sport Sciences Reviews* 1996; 24: 71–108.

107 King AC, Oman RF, Brassington GS, Bliwise DL, Haskell WL. Moderate-intensity exercise and self-rated quality of sleep in older adults: a randomised controlled trial. *Journal of the American Medical Association 1997*; 277: 32–37.

108 Naylor E, Penev PD, Orbeta L, Janssen I, Ortiz R, Colecchia EF, et al. Daily social and physical activity increases slow-wave sleep and daytime neuropsychological performance in the elderly. *Sleep* 2000; 23: 87–95.

109 Cochrane T, Davey R, Munron J, Nicholl J. Exercise, physical function and health perceptions of older people. *Physiotherapy* 1998; 84: 598–602.

110 Oka RK, De Marco T, Haskell WL, Botvinick E, Dae MW, Bolen K, et al. Impact of a home-based walking and resistance training program on quality of life in patients with heart failure. *American Journal of Cardiology* 2000; 85: 365–369.

111 Foy CG, Rejeski WJ, Berry MJ, Zaccaro D, Woodard CM. Gender moderates the effects of exercise therapy on health-related quality of life among COPD patients. *Chest* 2001; 119: 70–76.

112 Stathi A, Fox KR, McKenna J. Physical activity and dimensions of subjective well-being in older adults. *Journal of Aging and Physical Activity* 2002; 10: 76–92.

113 Riddoch C, Puig-Ribera A, Cooper A. *Effectiveness of Physical Activity Promotion Schemes in Primary Care*: A Review. London: Health Education Authority; 1998.

114 Spirduso WW, Cronin DL. Exercise dose–response effects on quality of life and independent living in older adults. *Medicine and Science in Sports and Exercise* 2001; 33: S589–S608.

115 Pate RR, Pratt M, Blair SN, Haskell WL, Macera CA, Bouchard C, et al. Physical activity and public health: a recommendation from the Centers for Disease Control and Prevention and the American College of Sports *Medicine. Journal of the American Medical Association* 1995; 273: 402–407.

116 USA Department of Health and Human Services. *Physical Activity and Health: A Report of the Surgeon General.* Pittsburgh, PA: USA Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion; 1996.

117 Department of Health, Physical Activity, Health Improvement and Prevention. *At Least Five a Week. Evidence on the Impact of Physical Activity and its Relationship to Health: A Report from the Chief Medical Officer*. London: Department of Health; 2004.

118 Saris WHM, Blair SN, van Baak MA, Eaton SB, Davies PSW, Di Pietro L, et al. How much physical activity is enough to prevent unhealthy weight gain? Outcome of the IASO First Stock Conference and Consensus Statement. *Obesity Reviews* 2003; 4: 101–114.

119 Lee IM, Skerrett PJ. Physical activity and all cause mortality: what is the dose-response relation? *Medicine and Science in Sports and Exercise* 2001; 33: S459–S471; discussion S493–S494.

120 Narici MV. Structural and functional adaptations to strength training in the elderly. In: Capodaglio P, Narici MV (eds). *Advances in Rehabilitation*. Pavia, Italy: PI-ME Press; 2000: pp.55–60.

121 Department of Health and Human Services. *Recommendations: Physical Activity Helps Seniors Age Successfully*. Atlanta, GA: Centers for Disease Control and Prevention, Division of Nutrition and Physical Activity; 2005. Available online: www.cdc.gov/nccdphp/dnpa

122 American College of Sports Medicine. Position stand: exercise and physical activity for older adults. *Medicine and Science in Sports and Exercise* 1998; 30: 992–1008.

123 Gillespie LD, Gillespie WJ, Robertson MC, Lamb SE, Cumming RG, Rowe BH. Interventions for preventing falls in elderly people [Cochrane review]. *The Cochrane Library* Issue 1. Oxford: Update Software; 2004.

124 Province MA, Hadley EC, Hornbrook MC, Lipsitz LA, Miller JP, Mulrow CD, et al. The effects of exercise on falls in elderly patients: a pre-planned meta-analysis of the FICSIT trials. *Journal of the American Medical Association* 1995; 273: 1341–1347.

125 Vuori IM. Dose-response of physical activity and low back pain, osteoarthritis, and osteoporosis. *Medicine and Science in Sports and Exercise* 2001; 33: S551–S586; discussion S609–S610.

126 Scottish Executive. *The Scottish Health Survey*. Edinburgh: Scottish Executive; 1998.

2 Considerations for promoting physical activity in later life

Introduction

This section addresses issues faced by groups and individuals when promoting physical activity to older adults. It begins by exploring the attitudes of older adults towards physical activity. This part provides a comprehensive view of the ways in which older adults perceive the benefits of activity and the perceived negative aspects that result in disinterest and discouragement. The next part of this section explores the factors that motivate older adults to participate, followed by a look at the obstacles that prevent older adults from taking part in physical activity. Finally, this section presents examples from good practice and outlines evidence from effective interventions.

How do people view physical activity?

In a recent study by Sport England in 2006 the research team explored the reasons why retired people (men and women aged 55–70) exercise, what they don't like about exercise, the reasons why they gave up exercise and what motivates them to participate in regular exercise.

Why people exercise

Physical benefits were the reasons most often mentioned by the female groups for exercising. Over the long term, and for the here and now, the female respondents identified the following reasons:

- to feel well
- helps/maintains mobility/suppleness, good for joints
- keeps weight down
- good for heart/cardiovascular system
- builds up bone density
- provides feeling of well-being (endorphins)
- helps/maintains mental alertness
- makes you happier
- prevents dwelling on aches and pains (older inactive)
- wards off depression (ethnic group)
- keeps you going, keeps you 'young', keeps you alive.

However, amongst the male groups, there was an emphasis on health and mobility aspects of exercise:

- good for the mind as well as the body
- general well-being
- stops body seizing up

- friendship
- enjoyment
- essential for keeping medical conditions under control, e.g. diabetes
- helps with weight control.
- can involve the whole family
- makes you feel younger
- satisfying – feel as if you have achieved something
- keeps you occupied
- wards off depression (ethnic group).

What people don't like about exercise

The recently retired feel that only certain forms of exercise are suitable for their age group. These tend to be more gentle forms of exercise, such as walking, swimming, bowling, yoga and dancing. Strenuous and 'dangerous activities' such as jogging, cycling, cricket and walking alone were not seen as being suitable for women. For women the negative aspects of exercise were seen as:

- injury, as a result of:
  - overdoing it
  - doing exercise unsuitable for age, condition
  - joint damage (high-impact exercise, e.g. jogging)
  - strains, breaks
  - aggravating existing condition
- becoming addicted and obsessive
- it's boring – includes some older 'actives'
- can be costly
- getting on with it – amongst the 'actives'.

Some of these views were underpinned by a fear that injury could jeopardise their independence. Amongst the 'inactives' the word 'sport' acted as a turn-off, especially because it is seen to imply strenuous, serious exercise that should not be taken up at retirement.

For men there was a similar range of negative aspects of exercise, although they were less likely to fear injury:

- a strong emphasis on overdoing it
- concerns about general health and the time it would take them to recover
- feeling that enjoyment would be lost as unable to compete at level they would like (mainly the 'inactives' group)
- vanity – not wanting to look stupid, old blokes in Lycra look silly
- cost, e.g. gym membership, golf equipment.

Men expressed similar views on suitable and unsuitable activities as women, with contact sports (e.g. football, rugby) seen as being unsuitable.

Reasons for giving up specific exercises or sports

The range of reasons for non-participation given by the inactive groups was varied:

- more value placed on 'active chores'
- may see exercise as a no-go area because of their age and/or health: includes some in the 55–64 age group with health problems, and more in the 65–70 age group and amongst the Pakistani women (in contrast, many of the active women with health problems were likely to see exercise as a way of dealing with these problems)
- some inactive women have a very distinct take on exercise, talking in the third person and referring to 'other people'.

All of the groups in the study discussed the reasons why they had given up specific activities. The main reasons given by women were:

- life changes (e.g. started/changed job, moved house)
- class stopped/teacher changed
- companion stopped going, particularly amongst the 'inactives'
- developed physical problem
- decline in skill/competence, mainly amongst the 'actives'
- too costly (for level of usage)
- lost interest.

For men, many of these reasons also apply, but aspects linked to skill decline are more common:

- health reasons – injury or illness preventing them carrying on
- life stage – often family commitments
- no longer feel 'sporty'
- can no longer compete to standard they want to
- no competitive teams for the older age group
- feel out of place in sports clubs/gym
- don't realise what actually goes on in these places - Pakistani men associated the word 'club' with dancing and drinking
- no longer have anyone to play sport with, i.e. no tennis partner
- laziness.

However, these negative perceptions can be overcome and projects that aim to promote physical activity in later life should take note of the motivating factors which are discussed in the next part of this section.

Motivators for participation in exercise and physical activity

The research found that motivators for participation are partly internally driven and partly external. The list is similar for men and women.

Internal motivators include:

- physical benefits:
  - getting/keeping fit
  - getting healthier/maintaining health
  - staying supple
  - controlling weight
  - prolonging (healthy) life/staving off old age
- social benefits:
  - meeting/mixing with other people
- mental/emotional benefits:
  - enjoyment of activity
  - having 'own space' (from partner) or (for some) having more time together
  - increased self-esteem
  - pursuing an interest (talking about 'other people') – 'inactives'
  - not feeling/appearing lazy – some 'actives'
  - lessen feeling of guilt (some men)
- retaining independence.

External motivators are:

- media tells you to
- doctor tells you to
- partner tells you to (particularly men).

Amongst 'inactive' groups this list becomes extended to include:

- friend encourages you
- family encourages you (also true for active Indian women)
- companion to do activity with (friend/relative)
- having very local opportunities.

Both the internal and external motivators show successful ways of getting older adults involved in activity, although it is also important to be aware of the barriers that older adults face.

What are the barriers to physical activity in later life?

People in later life experience a range of barriers that prevent them from being more physically active. These barriers can be intrinsic (internal barriers, relating to personal beliefs and experiences) and extrinsic (external barriers, relating to the broader social and physical environment). Table 1 provides examples of both intrinsic and extrinsic barriers to physical activity in older people.

Table 1 ***Intrinsic and extrinsic barriers to physical activity.***

Intrinsic barriers	Extrinsic barriers
Previous experiences	Weather
Motivation	Facilities
Attitudes and perceptions	Access
Self-efficacy (belief in ability)	Opportunities
Possibility of injury or harm	Type of activities available
Concerns about personal safety	Skills and attitudes of activity leaders
Absence of positive images/role models	Leisure and recreation policies
Skills and ability	Cultural and social influences

Given the scale of both risks from inactivity and benefits from being more active, it is important to understand why so many people are inactive. Studies such as the Health Education Population Survey provide a broad picture of the barriers that exist to being more physically active (Table 2 overleaf).

Table 2 ***Barriers to being more physically active by age.***

Health Education Population Survey 1997. Health Education Board for Scotland (HEBS).

Barriers	16–24	25–34	34–44	45–54	55–64	65–74
	%	%	%	%	%	%
Preferring to do other things	36	24	16	16	18	9
Feeling too fat or overweight	11	18	10	14	15	17
Do not enjoy exercise	8	12	15	13	10	6
Being too old	3	1	3	9	8	21
Lack of time due to other commitments	58	71	71	53	37	21
Ill health, injury or disability	14	17	28	28	38	37
Lack of suitable local facilities	34	22	18	22	12	14
Lack of money	28	14	13	10	4	3
Lack of transport	11	14	4	5	2	6
Nobody to go with	32	15	21	14	6	7
Put off by traffic, road safety or the environment	2	7	8	6	10	7
Put off by the weather	16	14	14	19	17	33
Don't have the skill or confidence to do it	9	6	8	8	5	9

This table shows that there is a wide range of personal, social and environmental barriers and that these differ depending on our age and stage of life. For people in later life, the top barriers to being more physically active are:

1. ill health, injury or disability
2. being put off by the weather
3. being too old
4. lack of time because of other commitments
5. feeling too fat or overweight

Research with older people also revealed the following barriers to being more physically active[2]:

- embarrassment – lack of private changing facilities, perception of inability to 'keep up' with others
- fears about 'overdoing it' – concerns about overexertion 'at their age', particularly for those with medical problems
- practical safety concerns – cold water, slippery swimming pool edges, fear of falling during an activity session, traffic, fear of attack
- lack of time – caring responsibilities and voluntary work
- lack of confidence – in ability to keep up with instructors or peers, or not wanting to go it alone
- lack of culturally appropriate facilities
- health professionals and family advice – 'at your age'
- myths and perceptions – what is good and what is not good.

In the Sport England study of retired adults in later life the inactive respondents identified the main barriers to undertaking physical activity as:

- lack of time:
  - spontaneous, top of mind
  - considered, and likely to concede matter of choice (apart from part-time workers and carers)
- cost – especially gym membership
- health and physical limitations
- fear of injury, mainly amongst older groups
- self-consciousness – mainly amongst older groups
- feeling unsafe out alone, after dark
- lack of (very) local opportunities
- lack of companion
- poor weather
- getting started
- lack of interest
- not enjoyable
- never acquired habit
- prefer to do other things
- laziness
- the perception that one does not 'look the part'
- cannot compete at desired level
- no perceived need to – because active and busy already.

The importance of consultation

Older people are a heterogeneous group and no single approach will guarantee success. The best source of information on the barriers faced by older people is older people themselves. Consulting with and talking to individuals and groups of older people about their own beliefs and attitudes and the specific barriers they face will assist in the planning of programs. Older people will also provide solutions as to how these barriers can be overcome.

Evidence of effective interventions for adults in later life

The Health Development Agency has published an evidence briefing[3] based on a review of reviews about the effectiveness of public health interventions for increasing physical activity among adults. The evidence briefing has been based on data drawn from systematic and other kinds of reviews.

Effective interventions to increase physical activity

The evidence briefing summarised the review-level evidence as follows:

- Interventions restricted to adults aged 50 years and older are effective in producing short-term changes in physical activity and there is limited evidence that they can be effective in producing mid- to long-term changes.
- A range of intervention strategies is associated with increases in physical activity with no single approach consistently and significantly superior.
- Interventions that use individual-based or group-based behavioural or cognitive approaches with a combination of group- and home-based exercise sessions are equally effective in producing changes in physical activity.
- Interventions that promote moderate intensity and non-endurance physical activities (e.g. flexibility exercises) are associated with changes in physical activity. Interventions that provide support and follow-up are also associated with changes in physical activity.

Examples of interventions included in the review are:

- community-based exercise classes
- a mixture of community classes supplemented by supervised home-based exercise
- the use of behavioural strategies such as goal setting, reinforcement, self-monitoring, problem solving, feedback, relapse prevention and social support.

The successful interventions included:

- exercise counselling and instruction
- structured class or group-based physical activity sessions
- home-based physical activities, particularly walking
- telephone and written contact and support
- computer-generated feedback and messages
- informal group meetings and events
- exercise log books.

At present, the systematic review might be perceived to be the most robust and reliable summary of effectiveness, closely followed by a well-designed meta-analysis. Although this briefing provides a basis for developing policy and practice, relying on this type and level of evidence to inform conclusions has some limitations and it is important to consider them when making decisions about policy or practice. Few studies addressed other types of physical activities that would be beneficial to this target group, e.g. activities that developed and maintained flexibility, balance and strength.

Effective interventions to improve functional capacity

A number of studies have been reviewed indicating the ways in which appropriate, specific, tailored and progressive exercise interventions can demonstrate significant improvements in functional capacity in a relatively short space of time. Table 3 summarises the available evidence.

Table 3 ***Improvements in functional capacity identified in research studies*[4].**

Programme focus	Expected period for significant improvement as a result of a tailored exercise programme
Strength	8 weeks for significant improvement among people aged 74–92 in functional tasks if the strength training mimics these tasks
Balance – dynamic – static	8 weeks to 6 months through t'ai chi or specific balance training for those over 65
Gait	8 weeks for people aged 75–92
Power	12 weeks for people aged 75–93
Postural hypotension	24 weeks of seated exercise classes for nursing home residents with a mean age of 84
Transfer	24 weeks following hip fracture among older adults aged 65 and over
Endurance	26 weeks for people aged 70–79
Bone loading – femur	1 year of high-intensity strength training for older women aged 50–70
Exercise and falls prevention	10–36 weeks for those aged 65 and over (t'ai chi); 1 year of home-based strength and balance exercise for those aged 80 and over

It is important to note that, as soon as a person becomes inactive again or stops 'overloading' the body, the loss of functional capacity will begin again.

Older people are just as likely as young people to change their physical activity-related behaviour and it is possible to reverse age- and activity-related decline relatively quickly. For example, among people over 75 years of age, 15 years of rejuvenation of muscle strength (27% increase in leg strength) can be regained in 3 months through strength training and one supervised class a week and some home exercises[5].

However, for the activity to be beneficial there needs to be a long-term commitment – both from the older person and the professionals working with them – to sustainable activities that will be ongoing, provide a training stimulus and be enjoyable.

Which older people should we target?

The framework in section 1 (see What is an older person?) was used to define the physical activity and health needs of older people according to the three categories identified in the National Service Framework:

- Making Activity Choices – for people entering old age
- Increasing the Circle of Life – for people in the transitional phase
- Moving in the Later Years – for frailer older people

These categories can help in the planning of national and local interventions in that they relate not only to health status and functional capacity but also point towards policy frameworks and the range of professionals and service providers who can be involved. This model should also help local agencies and their partners to make decisions concerning the targeting of older people.

In each of these three areas it is important to:

- ensure that the activities presented are fun and provide opportunities for socialisation
- address the social and economic barriers for older people such as access to venues, timing, cost, transport and safety
- consider the needs of black and minority ethnic groups, who may have cultural issues that deter them from participating
- involve the older person in the planning and development of programmes
- tailor the programme to the functional level of the individual or group
- develop innovative and creative programmes that avoid the stereotyping of the older person and promote positive images of older people
- build the skills of the workforce through education and training
- develop partnerships with a range of service providers.

This Active for Later Life framework, described in detail in Table 4 overleaf, provides a continuum of physical activity to meet the needs of all older people.

Table 4 ***The Active for Later Life framework - a continuum of activity.***

Activity area	Target group	Focus	Providers
Making Activity Choices *Independent and unsupervised activity*	**Those entering old age** • Independent older people whose health status does not affect their capacity to participate • Older people with low risk	**Disease prevention maintaining activity levels and functional capacity** • Starting and sustaining participation in physical activity • Involvement in active leisure,sport and exercise programmes • Active living and lifelong learning	**Leisure, recreation and activity providers** • Voluntary sector dance and sports groups • Primary health care teams • Activities may be self-directed, often assisted or supported by instructors, coacher, teachers and leaders
Increasing the the Circle of Life *Supervised classes and groups within a health, social, residential or care setting*	**Those in the transitional phase** • Older people in contact with services, e.g. housing or care • People whose activity level is declining and limited by functional and health status • Older peoeple with medium risk	**Maintaining independence, social networks and functional capacity** • Movement, dance and assisited walking activities • Chair-based exercise programmes, movement and games activities	**Service managers** • Social, care and residential settings • Day centres, housing wardens • Activities co-ordinators in nursing and residential settings • People qualified as leader/instructor/ teacher of older people • Health-care professional • Home visitors, e.g. community nurses

Moving in the Later Years	Frail older people	Improvement in quality of life	Specialist services
	• Physically frail, may be housebound and in a care or nursing setting • People whose dependency and activity levels are significantly limited by health status • Older people with high risk	• Maintaining independence and activities of daily living • Rehabilitation e.g. falls prevention, cardiac and stroke rehabilitation • Specific needs e.g. dementia, Parkinson's disease	• Physiotherapists • Occupational therapists • Exercise practitioner with additional training • Health and care teams with specific training • Activities co-ordinators in nursing and residential settings

Summary

- Older people should be at the centre of considerations for promoting physical activity in later life.
- Older people experience a range of barriers that prevent them from being more physically active; these barriers should be addressed and solutions sought through consultation with older people.
- A range of intervention strategies is associated with increases in physical activity with no single approach consistently and significantly superior.
- Successful interventions include exercise counselling, group-based activity classes, home-based walking programmes, frequent contact and support by telephone, written or electronic methods, activity diaries, informal group meetings and events.
- Specific, tailored and progressive exercise interventions can achieve significant improvements in functional capacity in a relatively short space of time.

1 Sport England. *Understanding Participation in Sport: What Determines Sports Participation Among Recently Retired People?* London: Sport England; 2006.

2 Finch H. *Physical Activity 'At Our Age'. Qualitative Research Among People Over the Age of 50.* London: Health Education Authority; 1997.

3 Health Development Agency. *Effectiveness of Public Health Interventions for Increasing Physical Activity Among Adults: A Review of Reviews.* Evidence briefing, 2nd edn. London: Health Education Authority; 2005 Available online: www.hda.nhs.uk/evidence

4 Dinan SD, Skelton DA. *Exercise for the Prevention of Falls and Injuries: Training Manual for Advanced Exercise Instructors Course in Postural Stability.* Leicester: Leicester College; 2000.

5 Skelton DA, Young A, Greig CA, Malbut KE. Effects of resistance training on strength, power and selected functional abilities of women aged 75 and over. *Journal of the American Geriatrics Society* 1995; 43; 1081–1087.

3 The national and local policy context for physical activity in later life

The Scottish Executive is committed to joint working between departments to deal with a wide range of issues, including physical activity in later life. The physical activity strategy[1] suggested that supporting physical activity is part of the core business of a wide range of departments and services. These services include transport, planning, environment, community safety, leisure and recreation, health, education, housing, social services, voluntary services and many others. To ensure that physical activity delivers positive benefits for adults in later life, important contributions are needed to continue in the following ways:

- cross-cutting policies, leadership, resources and support from the Scottish Executive
- local government policies and services that meet local priorities and needs
- non-governmental input (including voluntary sector services, independent sectors, enterprise agencies and many others), which is essential for connecting with people in later life and providing policy makers with recommendations, advice, and consultation on specific issues relating to adults in later life.

National policy

In recent years, three main policies have emerged that are relevant to physical activity in later life, each with the aim of connecting with other policies to co-ordinate planning and delivery to advance the promotion of physical activity with people in later life.

Improving Health in Scotland: The Challenge

Improving Health in Scotland: The Challenge[2] provides the national policy framework for health improvement in Scotland. The paper sets out a framework for action in the form of a challenge. It includes work on all of the determinants of health, covering life circumstances, lifestyles and priority issues. For the first phase *The Challenge* focuses on four priority themes, three based on key life stages (early years, teenage transition and adults of working age) and one on a key setting (community), together with seven priority topic areas. Physical activity is one of the seven priority topics and cuts across all themes.

Health improvement is a cross-cutting policy for the whole Programme for Government in Scotland. The policies set by *The Challenge* are being led by the Scottish Executive, Health Scotland and NHS boards and community health partnerships. *The Challenge* also provides a strategic framework for relating to work programmes and processes across Scotland that are central to health improvement including:

- community planning partnerships
- the health improvement work of COSLA and local authorities
- the impact on health that arises from the work of the business sector, voluntary sector and other strands of Scottish life.

Let's Make Scotland More Active

Let's Make Scotland More Active[3] was published in February 2003 detailing the Scottish Executive strategy to increase the nations physical activity. Scotland is one of only a handful countries in the world to have such a strategy in place. Dr Pekka Puska (Director, Noncommunicable Disease Prevention and Health Promotion, World Health Organization) believes that 'Scotland's physical activity strategy is an excellent example of how policymakers can adopt an integrated and multi-sectoral approach to improve public health and reduce chronic disease.'

This strategy is consistent with World Health Organization policy[4] and the five main strategies of the Ottawa Charter for Health Promotion.[5] These five main strategies are:

- building healthy public policy
- creating supportive environments
- strengthening community action
- developing personal skills
- directing health services at the people who need them most.

The strategy identified a number of priorities to help support adults in later life to become more physically active. These are:

- Adults in later life should have the opportunities and should be supported and encouraged to remain active in the community for as long as they choose.
- Frail older people living independently should have self-help resources and staff support to enable them to be physically active within their homes.
- People living in residential care should have opportunities for physical activity in line with the Care Home Standards 2001.

The Scottish Executive has put in place a system to co-ordinate policy making and planning to deliver the physical activity policy across its departments and agencies. This system takes the form of the Scottish Physical Activity and Health Council.

Scottish Physical Activity and Health Council

As part of the recommendations in the physical activity strategy, a Scottish Physical Activity and Health Council was created in 2005 to further strengthen the implementation of the strategy.

The Council is chaired by the Deputy Minister for Health and Community Care and comprises strategic delivery partners, academic specialists and senior policy advisors from other Scottish Executive Departments such as Education, Environment and Rural Affairs, Transport and Tourism, and Culture and Sport whose policies can help to meet the targets for physical activity.

The Council's role is to provide expert advice to the Scottish Executive on the health impact of physical inactivity and measures to reduce that impact and to offer leadership to physical activity and health policies and strategies in Scotland. The Council will report to the Joint Ministerial Group on Health Improvement And Inequalities and to the Physical Activity and Health Alliance.

Scottish Physical Activity and Health Alliance

The Scottish Physical Activity and Health Alliance is a joint national initiative of Health Scotland and the Scottish Executive to support further implementation of Scottish physical activity policy.

The Alliance will provide a focus for action to implement Scotland's physical activity strategy. It will be an interactive vehicle for two-way communication through which existing evidence, policy and practice will be disseminated. In addition it will provide a national consultative platform where members share knowledge and learning and have an opportunity to inform future policy decisions for health improvement in Scotland.
The Scottish Physical Activity and Health Alliance will inform stakeholders, capture progress on implementation of national strategies for physical activity and health, identify obstacles and provide opportunities for discussion and debate, which will inform solutions and remove barriers.
The Alliance will be accessible to practitioners from a range of professional and volunteer backgrounds, including local government, NHS health boards and community healthcare partnerships, community planning, voluntary and community organisations, local enterprise companies and businesses.

Adding Life to Years

Adding Life to Years[6] is a report of an expert group led by the Chief Medical Officer in Scotland, which was published in 2002. The remit of the expert group was to provide an overview of the major health problems faced by people in

later life and to provide examples of good practice and recommendations for improving the care of people in later life in NHS acute and primary care services.

Many of the recommendations made in *Adding Life to Years* relate directly to the promotion of physical activity with adults in later life. The report made it clear that the responsibility for taking forward its recommendations lies with many agencies, NHS boards, local authorities, clinical effectiveness and education bodies, voluntary agencies and patients groups.

To ensure co-ordination within NHS Scotland and with other initiatives across the Executive in support of older people, the Scottish Executive set up an implementation group chaired by the Chief Medical Officer. This group will monitor developments and the impact of change across Scotland, and report to Ministers and the Health Department.

All our futures: Planning for a Scotland with an Ageing Population

All our futures: Planning for a Scotland with an Ageing Population was published by the Scottish Executive in March 2007 and sets the vision for a future Scotland - a Scotland which will value and benefit from the talents and experience of its older people; a Scotland which welcomes its ageing population.
The document identifies 6 priority areas:
1. Improving opportunities, removing barriers
2. Intergenerational links
3. Health and well-being
4. Care, Support and Protection
5. Housing, Transport and Planning
6. Life Long learning opportunities

The executive has committed to working with the Health in later Life team at Health Scotland on the delivery of the physical activity work programme; older adults have been identified as a strategic priority.

Local policy

Community planning partnerships

The physical activity strategy recommended that community planning should be the main system for meeting locally identified needs and delivering the national physical activity policy locally.

Community planning has been described as a process whereby councils and their community planning partners and other agencies (in the public, voluntary, private and other sectors) come together to develop and implement a vision and strategy for promoting the well-being of their areas. The purpose of community planning is to make a difference by:

- committing the partners to developing an agreed strategic vision for their community
- dealing with cross-cutting issues that affect the social, economic and environmental health of the community.

The community planning partnership will achieve this by working together for the benefit of local people by:

- involving all sections of the community
- collectively identifying needs and deciding how these can be dealt with
- co-ordinating activity to help deliver improved and effective services.

The physical activity strategy recommended that physical activity priorities are expressed as objectives within the joint health improvement plan – joint plans developed by the community planning partners – which sets out priorities and strategies to improve the health of local people.

Community health partnerships

Community health partnerships are local partnerships set up by the Scottish Executive and NHS boards to:

- deliver and redesign local health and social care services
- integrate health improvement into the work of all those involved in the community health partnership.

Community health partnerships are partnerships between NHS boards, primary care practitioners, specialist services, health promotion teams, social care practitioners, joint future groups, local authorities, the voluntary sector and the public. They will identify the health needs of their local communities and

develop, monitor, deliver and review programmes to address these needs. This will be expressed in a local health plan. A structure for setting priorities for the overall goal of health improvement and reducing inequalities is provided in *The Challenge*. This sets out priority themes and topic areas that require a range of actions to be implemented nationally and locally. Community health partnerships are a key vehicle for taking forward *The Challenge* priorities and delivering the priorities of the physical activity strategy.

Local services, strategies, plans and partnerships

Local strategic partnerships have the potential to bring together local community agencies from the public, voluntary, business and community sectors to ensure that different services, strategies and plans support each other across local communities. Local partnerships provide a forum through which mainstream public service providers can develop local plans and priorities in consultation with one another and with those they aim to assist.

Table 5 overleaf shows the different areas where a wide range of local stakeholders could help to achieve the objectives of *The Challenge*, *Let's Make Scotland More Active* and *Adding Life to Years*, particularly in relation to the priorities for increasing physical activity among adults in later life.

Table 5 ***Increasing physical activity in later life: contributions by local service providers***

Organisation	Contribution
Community planning partnerships, including local authority department health boards, the voluntary sector and the public	**Health-enhancing physical activity interventions – through the joint health improvement plan** Transport and planning – through local transport plans: • changes to the built environment • home zones • traffic calming • pathways and cycleways • street lighting Leisure and recreation - through physical activity strategies: • access to leisure facilities • physical activity opportunities for older adults • exercise referral schemes • swimming pools Culture – through cultural plans, opportunities for: • drama • dance • music Development and regeneration – through neighbourhood renewal strategies: • access to parks and play areas • outdoor physical activity opportunities • allotments • green space • waterways, canal paths, cycleways Social services – through service plans: • physical activities in care homes promoting physical activity with client groups via peer mentoring and home-help programmes Education services – through lifelong learning programmes: • education and training opportunities • peer mentoring programmes • activity leadership opportunities • access to facilities in schools Human resources – through employee well-being policies: • Scotland's Health At Work scheme • pre-retirement policies • health checks and health promotion policies

Community health partnerships, including health boards, primary care practitioners, specialist services, health promotion teams, social care practitioners, joint future groups, local authorities, the voluntary sector and the public	Health-enhancing physical activity interventions – through local health plans: • consultation with communities • health promotion programmes • falls prevention programmes • rehabilitation services • therapeutic physical activity interventions (cardiac, osteoporosis, back pain, weight management, stroke, mental health, arthritis, diabetes) • Scotland's Health At Work scheme • physical activity opportunities in care homes • home-based physical activity programmes
Non-governmental, including voluntary sector services, independent sectors and enterprise agencies	On specific issues relating to adults in later life: recommendations • advice and expertise • consultation with older people • innovation and creative solutions • forums for sharing information and experiences • effective partnerships • physical activity opportunities • active volunteering • social support networks
Other organisations	Academia: • education and training, access to facilities, research and evaluation Housing associations: • improved design of homes and communities, consultation with residents Local access forums: • community consultation, access to the green space, countryside and outdoor recreation Media: • reaching older people, communicating health promotion messages, publicity and special features Partnerships: • community safety: crime prevention, safer streets, injury prevention • healthy living centres: local physical activity programmes • local access forums: access to the green space, countryside and outdoor recreation

Common themes of national and local policies

A closer examination of the policy frameworks outlined in this section reveals some common themes that indicate how physical activity can contribute towards improving the quality of life for older people. These include:

- promoting independence and mobility
- the importance of engaging and consulting with older people
- social inclusion and addressing health inequalities
- developing strategic partnerships
- preventing ill health, disease and disability
- preventing accidents among older people.

Summary

- *Improving Health in Scotland: The Challenge* is the national policy for health improvement in Scotland. Physical activity is one of five priority topics identified within *The Challenge*.
- Health improvement is a cross-cutting policy for the whole Programme for Government in Scotland. It is being led by the Scottish Executive and their agencies and will be implemented in partnership with others.
- *Let's Make Scotland More Active* is the national policy for physical activity in Scotland. A number of priorities to help support adults in later life to become more physically active form part of this policy.
- A Scottish Physical Activity Council and a Physical Activity and Health Alliance are the systems that are in place to co-ordinate policy making and planning to deliver the physical activity policy in Scotland.
- Community planning is the strategic mechanism for delivering national policy locally. Within community planning joint plans are developed by local partnerships to meet locally identified needs and deliver national policies. Numerous local plans have the potential to impact on physical activity in later life.
- Community health partnerships are a key vehicle for taking forward *The Challenge* priorities and delivering the priorities of the physical activity strategy.

1 Scottish Executive. *Let's Make Scotland More Active*. Edinburgh: Scottish Executive; 2003.

2 Scottish Executive. *Improving Health in Scotland: The Challenge*. Edinburgh: Scottish Executive; 2003.

3 Scottish Executive. *Let's Make Scotland More Active*. Edinburgh: Scottish Executive; 2003.

4 World Health Organization Physical Activity Policy. Available online: www.who.int/topics/physical_activity/en/

5 Ottawa Charter for Health Promotion. Available online: www.who.int/hpr/NPH/docs

6 Scottish Executive. *Adding Life to Years: Report on the Expert Group on Health Care of Older People. Edinburgh*: Scottish Executive; 2002.

4 A planning and evaluation framework for physical activity in later life

Introduction

This section describes a step-by-step process that is designed to help plan and evaluate physical activity initiatives for adults in later life. It uses the LEAP for Health: Learning, Evaluation and Planning approach produced by the Scottish Executive. In this framework, guidance on planning, implementing, analysing and disseminating the results of evaluations will be found.

The section begins by laying out the LEAP approach before offering guidelines on how to make decisions about the purpose and agenda of an initiative, construct an appropriate plan, identify the indicators that will be used to evaluate the initiative, provide evidence to show the difference that the initiative has made and capture the learning from the experience.

In addition to this outline of an evaluation framework, a troubleshooting guide can be found in Appendix 4. A set of templates to enable an evaluation of a programme or project to be undertaken can be found in Appendix 5.

LEAP for Health: Learning, Evaluation and Planning

In 2003 Health Scotland produced LEAP for Health: Learning, Evaluation and Planning, which provides a framework for people who work in community health settings. It places emphasis on self-evaluation, encouraging participants (or stakeholders) to take joint responsibility for planning and evaluation throughout a project or programme. It is based on the following assumptions:

- evaluation should be an integral part of promoting community health and well-being
- both the providers and the users of a community health programme should take part in its planning and implementation
- the main aim should be for continual improvement in effectiveness and efficiency
- future work should be informed by lesson learned.

The LEAP approach begins by identifying a project area and then follows a number of steps:

- **Step 1: What needs to change?**
- **Step 2: How will you know?**
- **Step 3: How will you go about it?**
- **Step 4: How will you know you did it?**
- **Step 5: Did you do it? How useful is it?**

LEAP uses a preliminary stage before these steps in which the personnel involved in the project select a target area or 'identify needs'.

Identifying needs

This is a preliminary exercise that is carried out before the LEAP steps begin. Identifying needs is a way of establishing the priorities of a project by selecting a focus for resources and highlighting a way forward for stakeholders.

Identifying need	Your notes
Food co-op example	**What (now) needs to change?**
Work with community groups to develop local projects on health and well-being issues.	
Food outlets need to respond directly to the needs of local people	
There needs to be food quality food at an affordable price for local people	
The profile fo food and health needs to be raised in the community	
	Things to think about • What needs and issue is your project designed to address? • Who defined these needs and issues, and on what evidence? Managers, staff, partnets, others? • Were the service users community members and/or potencial beneficiaries involved and if so,how? • What is the relevant policy context in which the needs can be addressed?

Methods of identifying community needs are widely available and may be ascertained via a needs evaluation exercise. The LEAP approach advises that all those embarking on a programme of change ask themselves the following questions:

- **Why are you doing this?**
- **What issues and problems are you dealing with?**
- **Whose issues are they - the community's, the agency's or the policy maker's?**

These questions may help to construct a rationale for the project and can be used to identify potential difficulties. They can alert the planners to issues that they will need to consider throughout the project. Once the needs and/or problems have been identified, the first step is to decide what you want to achieve: the planned goals or outcomes.

Step 1: What needs to change?

The first of the steps in the LEAP approach is to decide what the project must change in order to address the needs that it has established. The changes that the project wishes to make are called the outcomes. At this stage it may be useful for the planning team to think of themselves as architects who must develop a blueprint for the type of project that they are working on. The blueprint must contain all the things that are needed to complete the project successfully.

It is possible to come up with an infinite number of potential goals or outcomes so it is necessary to set priorities, focusing on the most critical areas. Include positive (developmental) and negative (problem reduction) goals/outcomes. Avoid goals/outcomes that are vague or too ambitious.

Step 1	Your notes
What needs to change? (outcomes)	**What (now) needs to change?**
Food co-op example	
A food co-operative is established by the community	
The co-op is well managed	
The community has access to a wider range of food	
Food is supplied at lower cost	
The service is valued and used	
The profile of food and health issues is raised	

Child and adult health is improved	**Things to think about**
	• Is change desired in:
	  • the quality of life for individuals, groups and communities?
	  • the confidence and capacity of people and communities to control their circumstances?
	  • the culture and understanding of service agencies and/or partners?
	  • attitudes and perceptions of the general public?
	• Who has defined the changes that are needed?
	• Is this a shared vision among users, volunteers, staff, managers, partners, funders, others?
	• Have the underpinning values been considered?
	• If not, what can you do to develop ownership of the vision and accountability to it?
	• Can you define your vision as a set of anticipated outcomes?
	• Is your vision clear to you, your partners, users, and more widely?

The organisers gain confidence and skills	
Confidence and skills are transferred to other community needs	
New community activists become involved	

There is no guarantee that people or conditions will change as desired; what actually happens may be different from what is expected. Nonetheless, all parties in the project, including all agencies and all workers, need to know what outcomes are being sought, otherwise they cannot judge the value or effect of the outputs that take place. To give direction and purpose to a project, LEAP crystallises the first step into a short question:

- **What difference should your actions make?**

This question should encourage the planning team to be creative and ambitious with their aims. It should be considered by all participants in the decision-making process, including stakeholders, at the outset of the project. Once the desired outcomes have been decided and the rationale has been effectively communicated to all parties, the planning team must select appropriate ways of achieving their aims.

Step 2: How will you know?

The second step in the LEAP approach is concerned with whether your actions are being effective in producing the outcomes that you have planned. For example, how can you judge whether participants have acquired skills that they need or whether they are able to use them to improve the quality of their personal, family or community life? To make such judgements you need to collect evidence – known in LEAP as 'identifying outcome indicators'.

Evidence may be obtained from a variety of sources and using a variety of methods, such as:

- **from records (e.g. case notes)**
- **by observation (of the use of skills, for example)**
- **through asking questions, both of participants and of those who work with them.**

Step 2	Your notes
What resources will be use? (inputs)	**What (now) needs to change?**
Food co-op example	
Worker time (5 days) and admin support; Internet and other information sources; funding; policy framework on food and health	
Worker time (10 days)	
Worker time (10 days) and admin support ' Internet and other information access' funding; policy framework on food and health	
Worker time (10 days) and admin support	
Worker time (5–10 days) and admin support; access to resources of training provider (e.g. FE college)	**Things to think about** • Think about material and non-material resources • Think about user/community resources and assets; the resources of your project and its partners; other agency resources that could be engaged; external resources • Think about the quality and quantity of each, and how they could be improved • Bear in mind that your answers to this may lead you into a mini-LEAP cycle if you need to improve resources
Worker time (3 days) and admin support; commitment fro m community diet project	

It is important to think ahead so that you can plan ways in which evidence will be collected, building these into your activities and procedures. All participants should be involved in the process. The aim is to identify outcome indicators that relate to the following questions:

- **How much has changed? (quantity)**
- **How beneficial has the change been? (quantity)**
- **Who has benefited and who has not?(equity)**
- **What resources have been used? (efficiency)**
- **How far have the planned outcomes been achieved? (effectiveness)**

Once you have agreed on your indicators you should conduct a baseline study. This means gathering evidence relating to where things stand at the start of the process, using the indicators that have been chosen. This information is needed so that when you collect the evidence at a later stage you will know what has changed.

Step 3: How will you go about it?

Once the aims/outcomes have been established and the outcome indicators chosen, the next activity is to connect all the components in your project. You will need to think about the stakeholders, funding streams, number of staff available and their skill sets. In the LEAP approach this stage revolves around 'how' and it may be useful to think of this step as 'action planning'. There are three characteristics to bear in mind:

- resources (inputs)
- methods (processes)
- eventual actions (outputs).

Resources/inputs

The resources or inputs are all the things that you will use in your project. They include things such as equipment but also the people who will be involved. Resources will come from different areas:

1. *The community.* Local community-run services can provide motivation, useful skills and knowledge of the local area and its inhabitants, and open up networking possibilities.
2. *Stakeholders*. The agencies driving the project may also contribute staff (their time and skills), equipment and services or facilities.
3. *External agencies.* National, international and supranational agencies may be able to provide finances, guidance and advice for your project.

Between them, stakeholders can contribute a wide range of resources including skills, knowledge, energy, time, money, equipment, facilities, and relevant and supportive policies. It is essential to be clear about what each stakeholder is willing and able to contribute, and to try to maximise the benefits that can be gained from combining their resources.

Methods/processes

This part of the action plan connects activities to the aims, including:

- investigating needs
- providing information
- building confidence
- identifying opportunities
- project planning
- advocacy and support
- group work
- network development
- training
- action research
- marketing/publicity
- community organising
- campaigning.

It is likely that several processes will be used and deciding on which ones are the most appropriate and relevant is important. The following checklist can be useful:

- **Will the processes achieve what you want? (effectiveness)**
- **In the light of other needs to be addressed, can the level of resources required be justified? (efficiency and equity)**
- **Will all stakeholders be able/prepared to adopt the chosen processes?**

Eventual actions/outputs

The next stage involves taking a step back from the project and considering if any adjustments need to be made to the inputs or processes. The outputs are the specific things that will be carried out to achieve the desired changes (i.e. outcomes). They include such things as events, services, surveys, conferences, promotional and media presentations, training courses, participation structures, etc. After this, you must decide how to use the inputs and processes to meet the outcomes that you established at the outset.

When selecting your outcomes you should also set targets for each of them, decide upon a timescale and allocate sufficient resources. As well as setting targets for what will be done, you can also decide in advance who will do something and when it will be done.

Step 3	Your notes
What will we do? (outputs)	**What will we do?**
Food co-op example	
A community conference will be held within 3 months to discuss models for food co-operatives	
An information pack on food co-operatives will be created and available by the time of the community conference	
Work with community organisations to hold elections to a food co-op steering group at the end of the conference and establish the group	
Attend all steering group meetings for 6 months following formation to give advice on funding, resources, training and skills, development after 6 months	
Be available as consultant to steering committee members for the first 6 months. Review involvement after 6 months	
Audit training needs of steering commitee memebers identify or provide sutiable training to meet particular needs. Ongoing support task	
Identify successful co-ops and supply contacts to steering groups; promote contact with community diet project as a support agency within 3 months	**Things to think about** • Consider regular activities as well as occasional or one-off activities • Record what you will do in the short term, medium term, long term • Check that the activities are consistent with the methods you have chosen–and do you have the capacity to do them? • Think about how and why these activities should lead toward the outcomes you seek-have you thought about and planned for likely obstacles and risk?

Output targets can be listed for all key activities and can be classified in several ways, for example:

- **engagement activities**
- **community building activities**
- **partnership activities.**

Progress on a physical project, for example a building, can be assessed just by looking at the site, but progress in the field of older adults and physical activity is more difficult to measure. The outcome indicators that you select are critical to tracking your progress reliably. Avoid measures such as attendance figures, which do not show results.

Checking the effectiveness of your actions

The next stage of the LEAP approach recommends a review of your project to confirm that the outputs will be effective and that the outcomes will be realistically met. During the course of a project it is possible for finances and other resources to differ from what is initially forecast. This might mean that some outcomes need to be adjusted so that they reflect your actual capacity.

The next step is to determine the level of resources needed to achieve the outcomes. In the LEAP approach, the processes are described as the 'means and methods you use to bring about the changes you seek'. Look for programmes and services that have a demonstrated impact on your outcomes. Make sure that you understand what elements make these services effective so that you can apply them to your unique environment. It may be useful to canvass the targeted area and develop a map of services that already exist. This map will provide you with invaluable information about the community, its resources and its deficits.

You can now develop a plan for expanding the capacity of existing services, adding new services and eliminating ineffective ones. Specify the tactics that you will employ to achieve your goals. This plan is your strategic vision for service delivery.

Developing resources

Implementation of your strategic service plan will depend on the availability of resources. All stakeholders need to contribute in some way: clients donate labour, public and private agencies supply services or financial support.

It may be necessary to investigate sources of funding. National, regional, county and local resources should be considered. Local businesses may be willing to fund or underwrite specific projects. It may be possible to find private foundations that have a history of supporting programmes similar to those you have identified.

Don't forget other types of resources such as labour or in-kind services. Local colleges or universities may donate student or faculty time. They may happily undertake data collection and analysis tasks.

Maintaining focus

Even if you have put your team together and the community is ready, expect an extended process. It may take two years just to agree on outcomes, indicators and funding mechanisms. Keep the momentum going by setting intermediate, achievable goals that move towards the chosen results.

Step 4: How will you know you did it?

The next stage of the LEAP approach builds on the re-evaluation exercises that were begun in the previous step. To check if you have achieved the things that you planned to do, you need to monitor your progress at intervals throughout a project. The focus here is on monitoring what happened, not on assessing whether it is useful or not, or what impact it has. If you fail to take all the steps that you identified at the planning stage it is likely that you will also fail to achieve the intended outcomes, so continuous monitoring is vital.

Step 4	Your notes
How will we know we did it? (output indicators)	**How will we know we did it?**
Food co-op example	
Level of participation in conference; participants' evaluation of its quality and relevance	
Quality and relevance of written materials supplied	
Number of people seeking election, drop-out rate, leadership in committee; energy and enthusiasm shown, targets set and delivered	
Provide ongoing advice and organisation support	
Quality and relevance of training materials of participants (measure). Time and resource allocated, user satisfaction records, numbers of participants	**Things to think about** • This is monitoring–tracking your outputs • What do you really need to know abut and how will you build it into your recording and information systems • How can you ensure it will be manageable, and that those who need to produce records will be well disposed to doing so? • Are there conflicts–or shared opportunities–in the record-keeping- systems that funders or managers require? • Can a system be developed that all partners can sign up to?
Records of nature and substance of contacts made	

Step 5: Did you do it? How useful is it?

Step 5 is concerned with evaluating your project, learning from the experiences and planning ahead. The final evaluation involves assessing your progress and recording the achievements so that you can determine whether the outcomes have been attained. Using the indicators agreed in step 2, evidence should have been collected throughout the planned programme of work. This evidence is the basis for assessing how far the inputs, processes and outputs (step 3) have led to the outcomes planned at step 1.

Checking whether the intended aims have been achieved is not the whole or the end of the story. You also need to know whether some things happened that you did not anticipate and whether these things are positive or negative in their effects. It is also important to consider
how the roles played by the various stakeholders had an impact on
what happened and how it happened.
This is the 'learning' part of step 5. Only when all of the above information has been gathered together can participants make a full review of progress and agree on what needs to be done next. This is the point at which the cycle is complete, and a new one begins with the question: 'What now needs to change'?

Monitoring should be focused on the relationship between the outputs and the inputs and processes that led up to them. Each can be assessed on the basis of efficiency, effectiveness and equity. Thus, at step 4, you need to put in place the means to check that every participant meets the commitments that they have made and that the plan is actually put into action. This involves identifying indicators that will tell you whether the activities you plan are carried out in the manner intended. You will set specific targets for when, where and how you will undertake the activities that you plan. The indicators need to provide information to help you see whether you have met your targets. You will also want to know whether your approach is efficient and equitable: did you use more or fewer resources than necessary and is everyone who should have been involved enabled to participate?

Participants need to agree on how they will report to one another and establish a way of working that ensures that all their activities are open to scrutiny by others. It may be helpful to have an overall action-plan co-ordinator.

Review and improvement

Promoting physical activity amongst older adults is an on-going process and new initiatives may be needed from time to time. However, those who participate in these initiatives are often those who have already been involved

and whose perceptions of needs, appropriate actions and satisfactory solutions are influenced by their previous experiences. A poor experience is likely to reduce motivation and commitment; a positive one is likely to enhance it. This is true for all stakeholders, not just the community participants. Positive collaboration leads to increased confidence, understanding and trust, which feed into future joint working. Negative experience undermines partnerships and results in tension, inefficiency and ineffectiveness. As has been seen, reviewing evidence systematically helps to find ways of doing things differently or better in future. There is a danger, however, that the evidence is simply reviewed in a way that suits the convenience and planning cycles of the providers, rather than the priorities of the participants. A balance must be struck between review and developmental improvements for long-term strategic purposes and more immediate responses to needs. It is important to be flexible and prepared to respond to different rhythms and paces of development, always keeping in mind the LEAP principle that community health and well-being work should be needs-led and responsive.

The remaining parts of this section present a range of tables and templates to help further with the LEAP process.

Templates

LEAP action-planning tables and templates

Guide to the LEAP templates

The LEAP approach to community well-being offers a guide for users, which is laid out here. LEAP divides community health concerns into three dimensions, which projects can use as a defining point:

- **promoting personal health**
- **building community strengths**
- **achieving change in quality of life.**

Each core purpose is broken down into several dimensions, which are defined and described below. Each dimension is, in turn, divided into elements, and these form the basis for detailed planning.

PURPOSE: PROMOTING PERSONAL HEALTH	**Dimension:** Promoting awareness; identifying and engaging purposefully with people; establishing and maintaining a purposeful relationship with individuals (patients, clients, service users) using techniques to reach the excluded or non-engaged				**Table 2**
1	2	3	4	5	6
Key tasks (elements)	**What resources will we use? (inputs)**	**What methods will we use? (processes)**	**What will we do (outputs)?**	**Your output indicators**	**Potential outcomes**
Make contact with people, groups and organisations	Examples might include • worker time • knowledge • use of networks	• How will you make contact with people, groups and organisation and/or make your service available? • What methods will you use - visits, letters, publicity, telephone, attend meetings? • How will you record contacts made and relevant information/ evidence?	For example, specific targets: • Producing an information leaflet about you service or a particular issue and circulating it to a specified group of people within a specified time scale • A database or other record of contacts made and information gathered		• People aware of services and supports available • Information gained supports planning and other activities • Demand from people for services is generated • Services respond to identified needs
Target excluded people and those not yet participating to assess their needs	Examples might include: • research finding on processes of inclusion • interpreters • arrangements with service providers	• How will you identify excluded and non-participant groups? • What methods will you use to reach these groups and assess perceptions and needs? • Can you use a variety of techniques to show the value of well-being activity; e.g. outreach work, health fairs, leaflets	For example, specific targets for: • A month-long programme of street work to engage with young people primary care staff to undertake short needs assessment surveys		• barriers to involvements are understood • Attention is given to those with the greatest need • Providers assess the relevance of their programmes and make adjustments • More members of excluded groups are involved • Exclusion diminishes

Column 1: Key tasks (elements)

Promoting personal health is split into four dimensions. These are:

- **promoting awareness: identifying and engaging purposefully with people**
- **promoting confidence, choice and control: providing information, opportunities and helping people make choices**
- **promoting self-reliance and independence: helping sustain continued involvement**
- **promoting connections to community: helping link into other networks and activities.**

Building community strengths is split into four dimensions. These are:

- **building skills: supporting the development of skills and confidence in the community**
- **building equality: promoting broad-based participation in community affairs**
- **building organisation: assisting the strengthening of the community infrastructure**
- **building participation: assisting communities to exercise power and influence.**

Achieving change in quality of life is split into four dimensions. These are:

- **working with communities to assess issues, needs and assets**
- **working to establish a vision for future change**
- **assisting development of community groups and organisations to plan and carry out action**
- **identifying and helping to access resources to support action.**

Each of the dimensions in achieving change in quality of life can be applied to any of the aspects of quality of life set out above, as follows:

- **improving the community economy through community activity on community wealth matters**
- **improving services through community activity on service quality matters**
- **promoting healthy environments through community activity on community safety and health matters**
- **enhancing community culture through activity on expression, recreation and creativity**
- **extending local democracy through community activity on partnership and citizenship.**

It is important to note that the distinctions between the dimensions of well-being are primarily to help with clarity of understanding and analysis. In practice there will be extensive links between the dimensions, for example a food co-op may well support activities that have an impact.

Column 2: What resources will you use? (inputs)
The nature of the inputs will depend on local circumstances – the resources of the stakeholders who are contributing to the programme, particular local policy guidelines, and so on – but a few examples are given to show the sorts of input that may be available.

Column 3: What methods will you use? (processes)
Here you pose questions about the specific types of things that workers are likely to do which relate to the elements of community health and well-being. For example, workers may provide training, organise events, undertake research or provide guidance on funding opportunities. Thus, the focus is on ways in which community health and well-being is promoted.

Column 4: What will you do? (outputs)
Outputs are the specific products or activities involved in a project or programme. Again, these will vary according to local circumstances but some examples are shown. It is important to remember that outputs are things that you can plan to achieve using the inputs available to you. In other words, you can specify in advance what your work should produce. For example, your output target might be to produce a community health profile of a neighbourhood by a specified date, or to ensure that all premises used for community health and well-being activity are made accessible to wheel-chair users within years.

Column 5: Your output indicators

Column 5 is blank because you will need to decide with your stakeholders what indicators you will use to judge your performance in relation to your output targets. The indicators should tell you whether you have done what you intended and help make the connection between what you have actually done and the outcomes that resulted.

Column 6: Potential outcomes

The outcomes that you seek will be discussed and agreed in steps 1 and 2 of the LEAP framework. This column merely suggests examples of the sorts of outcomes that could emerge from the outputs you deliver, thus showing the connection between what you plan to do and what you hope to achieve.

5 Making the case for physical activity in later life

The framework for defining the physical activity and health needs of older people, described in Section 1, outlined three related and overlapping categories (Table 6):

- Making Activity Choices, for people entering old age
- Increasing the Circle of Life, for people in the transitional phase
- Moving in the Later Years, for frailer older people.

This framework may help with the planning of national and local interventions in that the categories relate not only to health status and functional capacity but also point towards policy frameworks and the range of professionals and service providers who may be involved. The framework has been designed to assist in the planning of a continuum of opportunities and services to meet the needs of all older people.

In each of the three categories, the focus of work will be on:

- involving older people in developing programmes
- providing high-quality and accessible programmes with local partners
- promoting positive images of older people by developing innovative programmes that avoid stereotyping
- building the skills of the workforce through education and training.

Table 6 The Active for Later Life framework–a continuum of activity.

Activity area	Target group	Focus	Providers
Making Activity Choices *Independent and unsupervised activity*	**Those entering old age** • Independent older people whose health status does not affect their capacity to participate • Older people with low risk	**Disease prevention, maintaining activity levels and functional capacity** • Starting and sustaining participation in physical activity • Involvement in active leisure, sport and exercise programmes • Active living and lifelong learning	**Leisure, recreation and activity providers** • Voluntary sector dance and sports groups • Private sector health and fitness clubs • Primary healthcare teams • Activities may be self-directed, often assisted or supported by instructors, coaches, teachers and leaders
Increasing the Circle of Life *Supervised classes and groups within a health, social, residential or care setting*	**Those in the transitional phase** • Older people in contact with services, e.g. housing or care • People whose activity level is declining and limited by functional and health status • Older people with medium risk	**Maintaining independence, social networks and functional capacity** • Movement, dance and assisted walking activities • Chair-based exercise programmes, movement and games activities • Home-based exercise programmes	**Service managers** • Social, care and residential settings • Day centres, housing wardens • Activities co-ordinators in nursing and residential settings • People qualified as leaders/ instructors/ teachers of older people • Health/care professionals • Home visitors, e.g. community nurses
Moving in the Later Years *Requires adapted physical activity*	**Frail older people** • Physically frail, may be housebound and in a care or nursing setting • People whose dependency and activity levels are significantly limited by health status • Older people with high risk	**Improvement in quality of life** • Maintaining independence and activities of daily living • Rehabilitation, e.g. falls prevention, cardiac and stroke rehabilitation • Specific needs, e.g. dementia, Parkinson's disease	**Specialist services** • Physiotherapists • Occupational therapists • Exercise practitioners with additional training • Health and care teams with specific training • Activities co-ordinators in nursing and residential settings

Making Activity Choices

Promoting physical activity with people entering old age

Target group focus

This target group includes those older people who largely enjoy independent living but who may have some indications of disease, although their health status does not affect their capacity to participate in physical activity. They will already be experiencing natural age-related functional decline. They may also be experiencing increased functional decline associated with increasing inactivity (which is also associated

with age). Although there are significant variations, most people in this group are likely to be in the 50–70 age range; they can participate in all activities of daily living and are able to regularly engage in appropriate physical activity.

Recommendations

The principal focus in this category is on encouraging the adoption of 'activity choices' to meet a wide range of physical, psychological and social needs. This might include starting as well as sustaining participation in physical activity opportunities such as joining a walking group, exercise class, sporting activity or dance class.

Making Activity Choices: key physical activity recommendations for this group

For general health benefit, adults should achieve a total of at least 30 minutes a day of at least moderate intensity physical activity on 5 or more days of the week.[1]

Recommendations for strength training are:

- aim to do strengthening exercises for all major muscles groups on 2–3 days a week, with a day of rest between workouts
- aim to do two sets of four exercises with 10 repetitions for each exercise.[2]
- healthy older adults who can achieve this level after a number of weeks should aim to progress by increasing the number of exercises in each set.

Recommendations for maintaining flexibility are:

- stretch all of the major muscle groups through their full range of movement on at least 5 days of the week
- aim to hold the stretched position for 8–10 seconds
- perform flexibility exercises before and after strengthening or aerobic activities.[3]

Recommendations for improving balance include:

- incorporating balance exercises into strength training exercises, for example lower body exercises for strength that require standing are also balance exercises
- perform t'ai chi exercises.[4]

Pre-activity health check for older people

Physical activity should not be hazardous to health but older people, particularly those who have been inactive for some time or those with pre-existing conditions (for example a heart condition, unexplained chest pains, high blood pressure, dizziness or fainting, and/or a bone or a joint problem) should check with their doctor or practice nurse and ask their advice before taking up a physical activity programme.

Potential programme partners

Table 7 (overleaf) shows the areas in which a wide range of local service providers could help to achieve the objectives of increasing physical activity among adults in later life, particularly for those who belong to the target group Making Activity Choices.

Strategic local leadership and co-ordination

Section 4 proposes an approach for planning and evaluating health and well-being interventions, such as those to promote physical activity and target those adult in later life who may be described as being within the Making Activity Choices category. The involvement of both the providers and the users in planning and evaluation is integral to this approach.

Table 7 (overleaf) identifies a number of key players who may be involved in a partnership to plan and evaluate interventions targeted at those in the Making Activity Choices category. The leadership role in Making Activity Choices is likely to fall to staff in key agencies involved in community health and well-being, whether at a project, programme or policy level. The role may not necessarily fall to the lead provider, and there are a number of possible positions that could take on the leadership role, for example:

- Ageing Well co-ordinators
- local authority physical activity officers
- 50+ development officers
- health-promotion officers.

Table 7 Making Activity Choices – contributions by local service providers.

Organisation	Contribution
Community planning partnerships, including local authority department health boards, the voluntary sector and the public	Leisure and recreation interventions: • walking groups, individual walking programmes • exercise classes for improving strength, flexibility and balance (i.e. t'ai chi exercises) • green gyms • leisure facilities • sports opportunities • exercise referral schemes • swimming pools Transport and planning interventions: • changes to the built environment • home zones • traffic calming • pathways and cycleways • street lighting Cultural interventions: • drama, dance, and music opportunities Development and regeneration interventions: • access to parks and play areas • outdoor physical activity opportunities • allotments • green space • waterways, canal paths, cycleways Social services interventions: • physical activity opportunities in community venues • promoting physical activity with client groups via peer mentoring and home-help programmes Education services/interventions: • education and training opportunities • peer-mentoring programmes • activity leadership opportunities • access to leisure facilities in schools Human resources and employee well-being interventions: • Scotland's Health At Work scheme • pre-retirement policies • health checks and health-promotion policies

table continues overleaf

Community health partnerships, including health boards, primary care practitioners, specialist services, health promotion teams, social care practitioners, joint future groups, local authorities the voluntary sector and the public	Health-enhancing physical activity interventions: • consultation with communities • health-promotion programmes • falls-prevention programmes • rehabilitation services • therapeutic physical activity interventions (cardiac, osteoporosis, back pain, weight management, stroke, mental health, arthritis, diabetes) • Scotland's Health At Work scheme • physical activity opportunities in care homes • home-based physical activity programmes
Non-governmental including voluntary sector services, independent sectors, enterprising agencies	On specific issues relating to adults in later life: • recommendations • advice and expertise • consultation with older people • innovation and creative solutions • forums for sharing information and experiences • effective partnerships • physical activity opportunities • active volunteering • social support networks • facilities: church hall, community centres, social clubs
Other organisations	Academia: • education and training, access to facilities, research and evaluation Housing associations: • improved design of homes and communities • consultation with residents Local access forums: • community consultation, access to the green space, countryside and outdoor recreation Media: • reaching older people, communicating health-promotion messages, publicity and special features Partnerships: • community safety: crime prevention, safer streets, injury prevention • healthy living centres: local physical activity programmes • Local access forums: access to the green space, countryside and outdoor recreation

Opportunities for programme development

Opportunities for new programmes for this target group can be developed in a number of ways. Ideas for activities, and key resources and other sources of information that can be used to help local developments are outlined below. For more information see the Information directory on p. 227

Many of these opportunities form part of mainstream health, physical activity, exercise and sports development activity; however, they may require specific and appropriate promotional and marketing strategies designed for the older adult.

These suggestions should only be used as a general guide because:

- older people may well describe the benefits in a different way
- the benefits are often interlinked
- such benefits will also depend on the frequency, intensity and duration of the physical activity undertaken.

Making Activity Choices – opportunities for programme development

Activity	Key resources
Walking and cycling groups and activities **C & IM** Walking remains the most popular activity among older people and can be undertaken individually, with partners and friends, or in groups. Programmes can build on the opportunities provided by regular local walks led by volunteers and promote 'active transport'	**Start up a walking group and U3A Walking Network** University of the Third Age www.U3A.org.uk **Paths to Health** www.pathsforall.org.uk **Scottish Ramblers Association** www.ramblers.org.uk/scotland
Dance and movement (within local community and arts-related programmes) **C & PS** Dance opportunities are identified by older people as being attractive, safe and sociable. Local branches of the Keep Fit Association and the Fitness League, and many other dance and movement organisations, provide local community-based opportunities for activity with a strong social element. These range from line dancing to tea dances, from cha-cha-cha to folk dancing	***Beyond the Tea Dance. A Charter for Older People*** Foundation for Community Dance www.communitydance.org.uk ***Creative Movement for Healthier Older People*** Dance4 www.dance4.co.uk ***Growing Bolder. A Start-Up Guide to Creating Dance with Older People*** Green Candle Dance Company www.greencandledance.com **Foundation for Community Dance** www.communitydance.org.uk **Jabadao** www.jabadao.org **Royal Scottish Country Dance Society** www.rscds.org

table continues overleaf

Adult and lifelong education programmes **OL & PS** Linking adult education to physical activity programmes, based on the premise that it is never too late to learn or to start being active	***The Impact of Learning on Health*** National Institute for Adult and Continuing Education www.niace.org.uk ***Prescribing Learning. A Guide to Good Practice in Learning and Health*** National Institute for Adult and Continuing Education www.niace.org.uk University of the Third Age www.U3A.org.uk
Extending sports participation **C & PS** Programmes to develop veterans' and older performers' sections in local sports clubs and associations will provide opportunities for those already committed to sports to be able to sustain their involvement	***Sport – A Leap into Learning?*** National Institute for Adult and Continuing Education www.niace.org.uk ***Active Older Adults: Ideas for Action*** Human Kinetics, Champaign, Illinois **British Orienteering Association** www.britishorienteering.org.uk **British Veterans Athletics Federation** www.bvaf.org.uk
Building on primary healthcare teams' advice and referral **C, MSE & F** Health professionals in primary care teams are ideally placed to encourage older people to increase their levels of physical activity. This can be done in one of several ways: • opportunistically – giving routine advice on the benefits of increasing activity • offering specific counselling services • recommending facilities – for example local walking programmes • developing exercise referral schemes	***Physical Activity Toolkit – A Training Pack for Primary Health Care Teams*** British Heart Foundation *Exercise Referral Systems: A National Quality Assurance Framework* Department of Health
Pre-retirement and workplace education programmes **C & PS** There are opportunities provided through workplace and pre-retirement programmes, which consider the transition out of paid work as an opportunity for health promotion through: • pre-retirement health checks • provision of exercise classes and 'active' commuting • opportunities to and from work • information and resource packs promoting health and well-being	**Pre-retirement Health Check Pilots** Health Development Agency www.hda-online.org.uk **Pre-Retirement Association** www.pra.uk.com
Working with non-governmental organisations **C, PS & OL** Physical activity opportunities can be developed within health-promotion programmes, in partnership with Age Concern and the University of the Third Age	**Age Concern – Ageing Well** www.ageconcernscotland.org.uk **University of the Third Age** www.U3A.org.uk

Exercise promotion via health and fitness clubs **C, MSE & F** Building on the enthusiasm of older people who are known to display a high degree of loyalty once committed to membership of groups and clubs	**Fitness for Life** (Central YMCA) www.centralymca.org.uk **Fitness Scotland** www.fitness-scotland.com **Fitness Professionals** (Fitpro) www.fitpro.com
Adapting and modifying sporting activities Developing specific programmes for older people who perhaps have left sports-specific participation behind, but do not want to be limited or stereotyped by chair-based movement or other 'gentle exercise' programmes	**Institute of Sport and Recreation Management** www.isrm.co.uk **British Sports Trust** www.bst.org.uk
Initiating new local exercise classes **C, MSE & F** Providing new groups for seniors and 'mature movers' in local venues, using qualified teachers and instructors.	**Fitness for Life (Central YMCA)** www.centralymca.org.uk See also the Training section of the Information directory
Intergenerational activities with local schools **PS & OL** Developing links between local schools and older adult groups and organisations can be used as a vehicle for inter-generational understanding and activity programmes	**Centre for Intergenerational Practice** generations@bjf.org.uk **Age Concern Transage Action** www.ageconcern.org.uk **Magic Me** T: 020 7375 0961
Promoting 'active living' e.g. walking and cycling to work, stair-use, gardening **IM & PS** Promoting accessible opportunities to be more active by encouraging non-participants to build activity into their daily routines	***Walk in to Work Out Encouraging Walking or Cycling to Work. Co-ordinator's Guide*** Department for Environment, Transport, Local Government and the Regions **Paths to Health** www.pathsforall.org.uk **Sustrans** www.sustrans.org.uk
Environmental projects such as Green Gyms and Home Zones **PS & OL** Urban and rural environmental projects – for example voluntary work restoring woodlands, building new pathways or restoring streams and ponds – provide opportunities for physical activity as well as social contact and networks of new friends	**Pedestrians Association – Living Streets** www.livingstreets.org.uk **British Trust for Conservation Volunteers** (Green Gyms) www.btcv.org.uk
Educating and training older people to become activity motivators and organisers **PS & OL** There are numerous opportunities to initiate new activity programmes by providing opportunities for older people to become activity leaders and teachers. These also provide new opportunities for lifelong learning, and for developing new interests and skills	**Community Sports Leader Award** (British Sports Trust) www.bst.org.uk **Paths to Health** www.pathsforall.org.uk See also the Training section of the Information directory

KEY

The following symbols indicate some of the more specific benefits that might be gained as a result of participation in each type of programme:

C = cardiovascular health

F = flexibility

IM = independence and mobility

MSE = muscular strength and endurance

OL = opportunities for learning

PS = psychological and social health

Motivating older people

Many older people will have a history of inactivity. As well as considering the barriers to physical activity, programmes designed to motivate inactive older people to become active will need to consider:

- those determinants and factors associated with positive changes, for example:
  - having a positive attitude towards physical activity
  - having a GP who recommends physical activity
  - belief in the health benefits of physical activity
  - high levels of self-efficacy for physical activity
  - high levels of social support for physical activity
- those who are in a position to provide motivation, advice and guidance to older people.

The role of health professionals

Health professionals are in a unique position to provide motivation, and evidence suggests that, for many older people, the advice of their GP can be a powerful motivational factor. Such advice will need to address in particular:

- the specific barriers to physical activity identified by older people
- the perceived lack of ability of older people
- a possible lack of transport
- medical concerns
- the fear of injury
- erroneous beliefs about physical activity.

A simple model of health professional advice for older people identified by Eakin in 2001[5] suggests the following sequence of activities for each patient contact:

- assessment of problem area(s)

- collaborative identification of goals between patient and professional
- creation of a tailored action plan that specifies which activities will be undertaken
- identification of any social and environmental barriers
- systematic follow-up and support.

Motivation through senior peer mentoring

Older people are in a unique position to influence and motivate other older people ('someone like us'), and programmes can be developed that incorporate the concept of the senior peer mentor. These programmes have been in existence in the UK and in the USA for some time within specific health projects that target older people. By involving older people themselves in health promotion activities with their peers there is the potential to deliver a health gain in partnership with large numbers of older people. A senior peer mentor is someone who helps and encourages other older people (their peer group) to take the first steps towards healthy living and successful ageing. They point people in the right direction, providing appropriate information, being someone whom an older participant can talk to and who will understand things 'from their point of view'. They can help with positive health promotion and may be seen as positive role models. Senior peer mentors are not expected to give medical advice. They encourage those involved to seek such advice by helping to remove fear and by listening to their concerns.

Reaching older people

Reaching many people in the Making Activity Choices group is often no different from promoting activity with other target groups, as they are living independently. Consequently, the principles of promotion and marketing of programmes and opportunities for these older people are no different from those required for other population groups.

Reaching potential new participants and 50+ groups requires an understanding of where older people aged 50+ go and ensuring that promotion materials are there. Local outlets for promotion will include:

- pre-retirement groups
- local branches of voluntary organisations
- doctors' and dentists' surgeries
- libraries
- post offices
- public transport
- pubs and clubs

- community groups
- religious organisations
- healthy living centres
- day centres
- local information centres.

Local radio and television and local newspapers are important channels of communication. One paragraph in a free newspaper may reach and attract a large number of older people. A press release or ready-written news article will also make life easier for local media partners. All promotional materials need to give a clear point of contact for those interested in activities.

Promotional launches involving local personalities, e.g. famous 80 year olds, can be useful in attracting media coverage, but beware of coverage that may trivialise the main message or offer stereotyped images of older people being active.

Local programmes can use a range of promotional ideas, which should focus on promoting positive images by developing innovative programmes that avoid the stereotyping of the older person. The following are examples of programme titles that were developed by groups of older people themselves:

- All to Play For
- Fresh Start
- Growing Old But Living Dangerously
- Improving With Age
- It's Never Too Late
- Movin' Aboot'
- Moving Through the Years
- Older and Bolder
- Re-activate
- Staying in Sport
- Staying Young
- Veterans and Mature Sport
- Vintage Sports
- Welcome Back.

Building the skills of the workforce through education and training

In many cases people will be self-directed in 'making activity choices'; however, they will often enjoy the help of an experienced and qualified leader, coach or teacher who can provide appropriate advice and guidance.

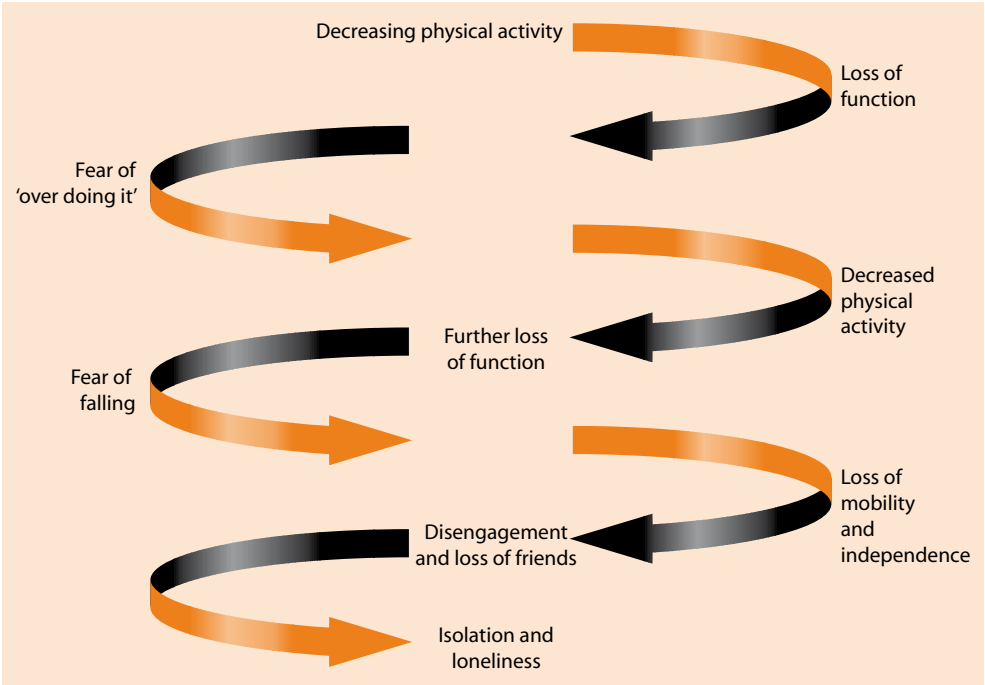
Increasing the Circle of Life

Promoting physical activity with older people in the 'transitional phase'

Target group focus

The target group is older people with very low levels of physical activity who are experiencing diminishing functional capacity and who are accessing a range of services to support their daily living. This may include those who continue to live at home and those who already live in a care or residential setting. Although there will be significant variations, most people in this group will be in the 65–85 age range. These older people are very unlikely to be engaged in physical activity. Although they may still be living independently, they may also be beginning to develop chronic medical conditions that may threaten their independence. Figure 5 illustrates the spiral of functional decline that occurs with decreasing physical activity.

Fig. 5 ***Downward spiral of physical activity, function and decline***



Recommendations

The principal focus in this category is on promoting physical activity that will improve functional capacity, increase mobility and help in the maintenance of independent living. This will allow older people to stay in touch with their friends, family and neighbours, get out and about to maintain their social networks and

visit places of interest, and sustain all the activities of daily living, e.g. shopping, getting about the house and gardening.

Increasing the Circle of Life: key physical activity recommendations for this group

The general physical activity goal of accumulating 30 minutes a day of moderate intensity physical activity on most days of the week still applies to this group; however, because of their relatively low fitness levels and reduced muscle function, low to moderate intensity activity is more appropriate. Also, the duration of the activity may be as little as 5-minute blocks initially, progressing to blocks of 10–15 minutes over time and working towards the recommended goal. Although the absolute intensity of activities can be lower than it is for younger adults, low-intensity activity can still produce health benefits for older people in this group.

Recommendations for strength training are:

- aim to do strengthening exercises for all major muscles groups on 2–3 days a week, with a day of rest between workouts
- aim to do two sets of four exercises with 10 repetitions for each exercise.[6]

Recommendations for maintaining flexibility are:

- stretch all of the major muscle groups through their full range of movement on at least 5 days of the week
- aim to hold the stretched position for 8–10 seconds
- perform flexibility exercises before and after strengthening or aerobic activities.[7]

Recommendations for improving balance include:

- incorporating balance exercises into strength training exercises, for example lower body exercises for strength that require standing are also balance exercises
- perform t'ai chi exercises.[8]

Choice of activities should be made in the light of an older person's functional limitations and symptoms of diseases. As there is a greater risk of injury in older people, higher intensity activities, and activities that involve sudden or complicated movements, should be avoided. Certain activities, such as frequently going up and down stairs, can aggravate some existing conditions such as osteoarthritis.

Pre-activity health check for older people

To ensure that programmes are safe and individually tailored a written health assessment should be carried out for all individuals, whatever their age and health status. This should be completed before the programme begins.

Although there are real concerns about the over-medicalisation of recreational and everyday activities, as this may imply that activity is risky or even dangerous (a concern of older people themselves), such an assessment can be used in a positive way. It is important to clarify (both to health professionals and to potential participants) that the purpose of the assessment is to ensure that inclusion and participation are at an appropriate level, rather than to ensure safety by excluding older participants.

Potential programme partners

The list of service providers who have the potential to promote physical activity for those in the Increasing the Circle of Life group overlap those highlighted in Table 7 for the Making Activity Choices group; however, the nature of the contributions may differ, as the needs of those in the Increasing the Circle of Life group are likely to require physical activity interventions that are tailored and specific to their health status and physical ability.

The following organisations provide a range of services to older people in the Increasing the Circle of Life group. These organisations have the potential to become partners in local programmes promoting physical activity with this group:

- housing and residential associations
- care homes and extended-care facilities, including hospitals
- social services
- residential settings, including warden-managed accommodation
- health and care services, including primary health-care teams
- community and day centres
- home visitors, including health visitors and community nurses
- local voluntary organisations, e.g. Age Concern day centres.

Strategic local leadership and co-ordination

Section 4 proposes an approach for planning and evaluating health and well-being interventions, such as those promoting physical activity and targeting adults in later life who may be described as being within the Increasing the Circle of Life category. The involvement of both the providers and the users in planning

and evaluation is integral to this approach.
The leadership role for the Increasing the Circle of Life group is likely to fall to staff in key agencies involved in community health and well-being, whether at a project, programme or policy level. The role may not necessarily fall to the lead provider, and there are a number of possible positions that could take on the leadership role, for example:

- public health practitioners, health promotion officers, nurses, health visitors or allied health professionals within a community health partnership
- a project co-ordinator within a community health project
- an Ageing Well co-ordinator
- a 50+ physical activity development officer within the local authority
- service managers, e.g. of home support or sheltered housing services.

Opportunities for programme development

Opportunities for new programmes for this target group can be developed in a number of ways. Some ideas that might be appropriate are described below.

These suggestions should only be used as a general guide because:

- older people may well describe the benefits in a different way
- the benefits are often interlinked
- such benefits will also depend on the frequency, intensity and duration of the physical activity undertaken.

There is some overlap between these opportunities for programme development and those decribed for Moving in the Later Years on p. xxx as many of the activities and opportunities may be appropriate for both groups of older people. The providers identified will be able to offer advice and guidance on the appropriateness of their programmes and the skills and experience of those involved, and any adaptations that may be needed.

Making Activity Choices – opportunities for programme development	
Activity	**Key resources**
Promoting gardening **PS & IM**	**Thrive** www.thrive.org.uk
Dance and creative movement activities **C, PS & IM** Partnerships with arts and dance agencies can be used to create a variety of dance and movement opportunities for older people	**Dance 4** www.dance4.co.uk **Green Candle Dance Company** www.greencandledance.com **Foundation for Community Dance** www.communitydance.org.uk **Royal Scottish Country Dance Society** www.rscds.org
Progressive chair-based and exercise classes **PS, IM, MSE & F** Several studies have shown that seated exercise is the safest, most effective way of strengthening functional muscle groups. Chair-based exercise programmes are an ideal way to introduce older people to exercise. Mastering basic exercise techniques on the chair gives the person confidence and skill before transferring these moves to standing. The American College of Sports Medicine (1998) recommends that for frailer older people it is better to build up strength before progressing to more dynamic activities However it is important to note that while chair-based exercise is an excellent way of introducing exercise, the very nature of chair exercise means that what is achievable is limited. To achieve optimal improvements in endurance, balance, co-ordination and the wide range of functional movements involved in everyday life it will be necessary, wherever possible, to progress to supported standing work and finally to free-standing, strengthening and walking activities	***Alive and Kicking. The Carer's Guide to Exercises for Older People*** By J Sobczak, Age Concern, 2001 Contains Age Concern guidelines (including safety guidelines) on structuring exercise plans and progression for chair exercise leaders and exercise teachers working with older people **Chair-based Exercise Leadership Course** Leicester College T: 0116 229 5512 **Extend** www.extend.org.uk **Excel 2000** www.excel2000.co.uk **Fitness Scotland** www.fitness-scotland.com **Keep Fit Association** www.keepfit.org.uk

table continues overleaf

Independent and home-based programmes **PS, IM, MSE & F** Evidence shows that significant improvements in levels of fitness and functional capacity can be achieved when those already taking part in chair or other group exercise sessions can be taught and encouraged to exercise independently in their own home	***Alive and Kicking. The Carer's Guide to Exercises for Older People*** By J Sobczak. Age Concern, 2001 Contains working guidelines on safety for chair exercise leaders and exercise teachers that apply equally to chair-based and standing exercises, for those working with older people. The guidelines focus on preparation as a priority and are divided into six areas: Step 1 A health check Step 2 Optional safety check Step 3 Day-to-day preparation Step 4 Safer, more effective, more enjoyable spaces Step 5 Effective professional relationships Step 6 Education and training for exercise professionals ***Exercise – A Guide from the National Institute on Aging*** National Institute on Aging, 2001 ***Exercise for Healthy Ageing*** Research Into Ageing
Independent and assisted walking and mobility **C, PS & IM** Regular walking is important for older people in the 'transitional phase' and not only provides an opportunity for regular physical activity, but also helps in maintaining the individual's 'circle of life', including contact with friends and neighbours and using local services and amenities Walking is particularly appropriate for de-conditioned individuals of all ages and those with additional health problems. As a person becomes older and walking becomes more difficult, there may be a tendency to do as little as possible unless there is a good reason for it. Walking without any real purpose soon becomes very boring. So thought will need to be given to the motivation for and purpose of walking Walking targets and opportunities can relate to everyday living – for example collecting a daily newspaper and other shopping trips or posting letters – as well as joining a local walking group and enjoying local parks and open spaces. Family members can also encourage walking, e.g. during visits from grandchildren For those living in supported accommodation (e.g. sheltered accommodation), walking programmes can be more structured. For example they could incorporate strategies for individuals and groups to accumulate 'walking miles' by regular measured walks such as around a nearby park or garden. These distances can then be 'converted' into miles and equated with more interesting walking targets such as London to John O'Groats, or the distance to a particular landmark	**Chair-based Exercise Leadership Course** Includes training in assisted walking Leicester College T: 0113 229 5512 **Paths to Health** www.pathsforall.org.uk

Other activities **PS, IM & OL** In addition to specific chair-based exercise activities, opportunities to experience a variety of activities will greatly assist the motivation of older people and reduce the potential for boredom. Variety can be provided through different activities such as: • parachute games • ball games • kite flying • music making • movement with scarves • making games equipment	**National Association for Providers of Activities for Older People** www.napa-web.co.uk For more ideas on activities see Information on exercise programming for older people
Themed events and activities **PS & OL** The stimulus for other types of activity promotion can be provided by building programming around different themes, for example to coincide with major sporting and recreational events such as Wimbledon, the FA or Rugby League Cup Final, or the London Marathon	
Getting out and about **PS & IM** Regular visits to local venues can incorporate physical activity opportunities through visits to local and countryside parks and shopping centres as well as visits to leisure centres, swimming pools and community centres	**Fitness for Life** (Central YMCA) www.centralymca.org.uk **Fitness Scotland** www.fitness-scotland.com **Fitness Professionals** (Fitpro) www.fitpro.com
Intergenerational activities with local schools **PS & OL** Developing links between local schools and older adult groups and organisations can be used as a vehicle for intergenerational understanding and activity programmes	**Centre for Intergeneration Practice** generations@bjf.org.uk **Age Concern Transage Action** www.ageconcern.org.uk **Magic Me** T: 020 7375 0961
Adult and lifelong education programmes **PS & OL** Linking adult education to physical activity programmes based on the premise that it's never too late to learn or to start being active	***The Impact of Learning on Health*** National Institute for Adult and Continuing Education www.niace.org.uk ***Prescribing Learning. A Guide to Good Practice in Learning and Health*** National Institute for Adult and Continuing Education www.niace.org.uk ***Learning in the Fourth Age*** National Institute for Adult and Continuing Education www.niace.org.uk **University of the Third Age** www.U3A.org.uk

KEY

The following symbols indicate some of the more specific benefits that might be gained as a result of participation in each type of programme:

C = cardiovascular health

F = flexibility

IM = independence and mobility

MSE = muscular strength and endurance

OL = opportunities for learning

PS = psychological and social health

Motivating older people

Many older people in the 'transitional phase' will have a history of inactivity. For a summary of the barriers to physical activity for older people see What are the barriers for older people? in Section 2. As well as considering these general barriers to physical activity, programmes designed to motivate inactive older people in the transitional phase to become active will also need to consider the following issues.

Overcoming concerns and fear

Studies show that older people may lack motivation as they may be concerned about their health and afraid of activity because of the risk of possible injury or harm as well as being apprehensive about trying new activities. In spite of understanding the potential benefits, many may shy away from taking part. Providing sympathetic leadership and introductions through demonstrations, taster activities and 'come and observe' opportunities will help to overcome these concerns.

Professionals also express concern that older people might over-exercise and cause themselves injury. The chances of overexertion are slim as older people have the ability to pace themselves and are most likely to work at a 'moderate' level. Often the reverse is true and the professional will most likely need to encourage the participant to extend their level of involvement.

Motivation can also be increased by making sure that the purpose of an activity programme relates to the participant's goals. For people in the transitional phase, these are most likely to be linked to:

- maintaining independence and getting out and about
- preserving activities of daily living
- playing with grandchildren
- fun and social activity.

Evidence also suggests that opportunities to change lifestyle, e.g. to take up physical activity, may be triggered by significant life events, such as:

- retirement
- becoming a grandparent
- recognition of loss of function
- the onset of a condition or illness
- moving home
- bereavement.

The influence of significant others

Older adults have strong views about the sorts of people who should promote physical activity. Ideally they should have a combination of authority and understanding of older people ('someone like us'), be of a similar age and appear 'ordinary' rather than super-fit or glamorous.

Consequently, GPs and health professionals (as authoritative sources of information), professional carers (in their understanding of older people's needs) and other older people (peers) – as 'someone like us' – are all in an ideal position to advise and encourage older people to become physically active.

The advisory process

Although to date there is limited evidence of the effectiveness of advising older people to become more active Eakin suggests that the following recommendations form the essential components of the process of advising older people:

- use of a health educator and an extended consultation time (30–40 minutes)
- an assessment of the problem area(s)
- recognition of participant's readiness to change and become active
- physical activity goals agreed by both participant and professional
- identifying potential social and environmental barriers
- an individual and tailored action plan
- a choice (range) of accessible local opportunities including lifestyle activities
- providing supplementary educational information and materials
- providing systematic follow-up and support.

Motivation through senior peer mentoring

Senior peer mentoring can be a means of motivating older people to become active and is appropriate for people in the 'transitional phase'. Mentoring can be undertaken by those involved in visiting older people in their homes and can form a part of befriending and volunteering programmes in residential homes and care settings.

Building the skills of the workforce through education and training

Because of previous patterns of inactivity, lack of confidence or lack of motivation, older people in the transitional phase may require skilled and enthusiastic professionals and volunteers who:

- can motivate and advise older people to take up activity
- are appropriately trained to plan and deliver physical activity opportunities or are aware of other suitable local opportunities.

These will include:

- primary health-care professionals including GPs and practice nurses
- housing wardens and managers
- professional and volunteer carers
- health visitors
- community nurses
- senior peer mentors.

Developing the skills of the workforce through training and education provides additional personal and educational benefits for those involved. It may inspire staff to become active themselves, perhaps for the first time. In addition, the importance of those who work with older people being 'active role models' should not be ignored.

Moving in the Later Years

Promoting physical activity with frailer older people

Target group focus

This target group includes older people who may be described as physically frail. If they are living in their own home they may have very limited mobility. Most people in this category are likely to be in a care or nursing setting and, for a variety of physical or psychological reasons, may be dependent on others. In most cases, their participation in physical activity will be limited by their health status and a number of specific conditions such as arthritis, stroke or Parkinson's

disease. Although there may be significant variations, most older people in this category will be in the 80+ age range. These older people are often described as being 'vulnerable' or 'at risk' as a result of health problems such as dementia and frailty in general.

Recommendations

The principal focus in this category is on promoting physical activity that will significantly enhance the quality of life, restore independence in some areas of functioning and assist in the performance of activities of daily living and with the complications of immobility. Regular activity and the subsequent contact with carers, family and, where possible, the local community will also assist psychological well-being.

Physical activity within the concept of recreation or leisure may, at times, be felt to be inappropriate for those working with frailer older people. Physical activity should be placed within a range of activities with purpose and meaning, designed to maintain the autonomy and dignity of the older adult in later life.

Moving in the Later Years: key physical activity recommendations for this group

An increase in age or frailty is not in itself a contraindication to physical activity. Therefore, the recommendations for the amount and type of physical activity that are appropriate for this group of frailer older people are no different from the recommendations for other older people, although adaptations may be required to meet individual needs (see Recommendations relating to specific needs and conditions on p. xx).
The general physical activity goal of achieving a total of at least 30 minutes a day of at least moderate intensity physical activity on 5 or more days of the week still applies to this group; however, because of their relatively low fitness levels and reduced muscle function, low to moderate intensity activity is more appropriate. Also, the duration of the activity may be as little as 5-minute blocks initially, progressing to blocks of 10–15 minutes over time and working towards the recommended goal. Although the absolute intensity of activities can be lower than it is for younger adults, low-intensity activity can still produce health benefits for older people in this group.

Recommendations for strength training are:

- aim to do strengthening exercises for all major muscles groups on 2–3 days a week, with a day of rest between workouts
- aim to do two sets of four exercises with 10 repetitions for each exercise.[9]

Recommendations for maintaining flexibility are:

- stretch all of the major muscle groups through their full range of movement on at least 5 days of the week
- aim to hold the stretched position for 8–10 seconds
- perform flexibility exercises before and after strengthening or aerobic activities.[10]

Recommendations for improving balance include:

- incorporating balance exercises into strength training exercises, for example lower body exercises for strength that require standing are also balance exercises
- t'ai chi exercises.[11]

Choice of activities should be made in the light of an older person's functional limitations and symptoms of diseases. As there is a greater risk of injury among older people, higher intensity activities, and activities that involve sudden or complicated movements, should be avoided. Certain activities, such as frequently going up and down stairs, can aggravate some existing conditions such as osteoarthritis.

For many sedentary, frail and de-trained older people, these recommendations may provide a daunting challenge, but any activity is better than nothing and it is never too late to start. A 'little and often' approach – progressing from just 3 minutes at a time and accumulating 'activity snacks' during the day – may be a valuable way of starting. The older and/or frailer the participant, the greater the potential benefits from the inclusion of strengthening, stretching, balance and co-ordination activities.

Safety in physical activity

The literature on exercise training in the frail elderly between the ages of 80 and 100 years in nursing homes includes no reports to date of serious cardiovascular incidents, sudden death, myocardial infarction or exacerbation of metabolic control or hypertension. The fear of excess injurious falls and fractures subsequent to re-mobilization has not been borne out in clinical trials. Sedentariness appears to be a far more dangerous condition than physical activity.
From: American College of Sports Medicine. Position stand: exercise and physical activity for older adults. ACSM; 1998. See also the most recent ACSM guidelines 2006.

Recommendations relating to specific needs and conditions

Intermediate care and rehabilitation

Intermediate care can be used to maximise older people's physical functioning, build confidence and re-equip them with the skills that they need to live safely and independently at home. Although specific targeted physical activity and exercise programmes can contribute greatly towards these aims, specific guidance on intermediate care and rehabilitation programmes is not included within this Active for Later Life resource. Such programming would be developed by a core team of professionals using an individual care plan based on the specific rehabilitative and care needs of the older adult concerned.

Those at risk of falls or who have fallen

Section 6 includes specific recommendations on the type of exercise programmes that are suitable for those at risks of falls or who have fallen.

Specific conditions

A number of conditions commonly affect older people in this category, for example arthritis, stroke, Parkinson's disease, dementia and depression, as well as hearing and visual impairment. The presence of these conditions and other impairments have important implications for the planning of physical activity programmes for the older adult. These relate to:

- the main characteristics of the disease
- the effects on exercise response
- the specific aims and benefits of the programme
- the possible effects of any medication
- the physical activity recommendations
- appropriate adaptations
- special considerations
- the motivation and education of the participant.

Specific advice and guidance on appropriate recommendations and programming for these groups (often described as 'special populations') can be obtained from the organisations listed in the Information directory (p. 227) or from physiotherapists and occupational therapists.

Pre-activity health check for older people

To ensure that programmes are safe and individually tailored, a written health assessment should be carried out for all individuals, whatever their age and health status. This should cover all of the relevant factors and be completed before the programme begins. For older frailer people such an assessment should be seen as an integral element of an individual care plan.

Although there are real concerns about the over-medicalisation of recreational and everyday activities, as this may imply that activity is risky or even dangerous (a concern of older people themselves), such an assessment can be used in a positive way. It is important to clarify (both to health professionals and to potential participants) that the purpose of the assessment is to ensure that inclusion and participation are at an appropriate level, rather than to ensure safety by excluding older participants.

Activity and activity programming

The definitions of physical activity given in Section 1 on p. 7 may not be appropriate for this group of older people, and much can be achieved by including physical activity within a broader programme of 'activity'. Generic activity programmes can assist in both maintaining existing interests and developing new ones, as well as providing physical and mental activity. A well-structured and balanced activity programme is one that will:

- increase physical abilities, including mobility, strength, balance, co-ordination, respiration and circulation
- improve mental abilities, including logic, concentration and memory
- enhance orientation
- encourage communication, interaction and social skills
- facilitate creative expression
- provide an opportunity to continue learning
- promote individuality
- create alternative roles for older people
- emphasise older people's abilities and skills and increase self-esteem
- require older people to make choices and decisions, thereby increasing autonomy
- reduce the stress and challenging behaviour induced by boredom
- provide relaxation.

The evidence outlined in Section 1 of this resource highlights the ways in which physical activity can contribute to such a generic activity programme.

Occupation

Occupation has been defined as 'the purposeful use of time, energy, interest and attention in work, leisure, family and cultural, self care and rest activities'.[13] The need to engage in purposeful occupation is a basic human need and plays an important part in the maintenance of health. Meaningful occupation can provide opportunities for interaction, communication, consultation and choice, and can ultimately enhance self-esteem and self-worth. This contrasts with the notion of including physical activity as a means of 'occupying' older people and filling time. It may be argued that, for frailer older people, the concepts of leisure and recreation are unhelpful. The focus on activity must be relevant to the occupational needs of the older person.

Therapy

Therapy (e.g. speech therapy, physiotherapy and occupational therapy) is often linked to the notion of change, improvement, growth and adaptation. Therapy is perceived as a dynamic concept, in contrast with care in which there is no anticipation of response or change on the part of the person being cared for. Physical activity can have a critical role in certain aspects of therapy programmes.

Play

It has been argued that play or playfulness is:

- a critical feature of human existence and therefore an integral part of old age as well as other life stages
- a feature of the circularity of life whereby older people return to whence they came.[14]

Theories of play are varied, and play can include movement, liberation, creativity, festivity and fantasy. In a variety of ways, physical activity can greatly contribute towards these goals and has the potential to provide much more than just 'fun and games'.

Whatever the overriding principles that underpin programming, the needs of the frailer, older participant should be the starting point for activities, with clearly defined purposes, relevance and integrity.

Potential programme partners

The list of service providers who have the potential to promote physical activity for those in the Moving in the Later Years group overlap those highlighted in Table 7 for the Making Activity Choices group; however, the nature of the contributions may differ, as the needs of those in the Moving in the Later Years group are likely to require physical activity interventions that are tailored and specific to their health status and physical ability.

The following organisations provide a range of services to older people in the Moving in the Later Years group. These organisations have the potential to become partners in local programmes promoting physical activity with this group:

- housing and residential associations
- care homes and extended-care facilities, including hospitals
- social services
- residential settings, including warden-managed accommodation
- health and care services, including primary health-care teams

- community and day centres
- home visitors, including health visitors and community nurses
- local voluntary organizations, e.g. Age Concern day centres

In addition to local contacts, a number of national agencies and organisations with regional and local branches will also be able to provide ideas and support (see the A to Z of useful organisations on p. 227).

Strategic local leadership and co-ordination

The activity co-ordinator

Fundamental to the setting up of (physical) activity programmes for frailer older people in the residential setting is the development of an activity co-ordinator. A variety of job titles are used to describe this work, for example activity organiser or social activities/entertainment secretary. Activity programmes need to be relevant, appropriate, fun and based on individual and collective needs, and they require a combination of specialist knowledge and skills. Co-ordination of activities is critical in that programmes should be planned, sustainable and a regular feature of residents' lives and not simply 'bolted on' or unconnected and disparate activities.

It is important that the activity co-ordinator is not seen as the sole provider of activities. If participation in activities is an integral feature of the care-setting policy, then all care staff should be encouraged to take responsibility for providing activities. This enables the activity co-ordinator to provide ideas and resources for other staff who may then be able to work with the co-ordinator on specific types of activities. Other people will have specific interests and skills that can be used to enhance the programme.

Leading a team

The activity co-ordinator should have the opportunity to develop a team approach within the residential or care setting and to develop an ethos of support, encouragement and co-operation within the whole establishment. This will require the commitment of everyone involved, including staff at all levels, volunteers and visitors, residents' families and the residents themselves.

Developing partnerships with the local community

The activity co-ordinator will also need to develop relationships with a range of agencies and organisations in the local community who can enhance activity programmes. In addition to those identified above as potential programme partners, local relationships can be built with those agencies identified in Appendix 2 Identifying potential partners.

Opportunities for programme development

Two approaches to programming are highlighted below. These are:

- including physical activity within broader activity programming
- having specific opportunities for physical activity as stand-alone activities.

These suggestions should be used only as a general guide because:

- older people may well describe the benefits in a different way
- the benefits are often interlinked
- such benefits will also depend on the frequency, intensity and duration of the physical activity undertaken.

Making Activity Choices – opportunities for programme development	
Activity	**Key resources**
Including physical activity within broader activity programming **PS & OL**	
Thematic activities The creative used of themed activities – whereby a subject or topic acts as a focus for a series of varied but linked activities – is an established means of activity programming with frailer older people. Themed programmes provide the opportunity for activities that meet a variety of needs e.g. cognitive, creative, physical, communication, social, sensory and reminiscence. Themed activities can have a number of starting points but those that might lead to the inclusion of specific opportunities for physical activity include: • childhood days • the countryside • cultural and religious festivals • entertainment and festivals • gardens and gardening • health • heritage and history • hobbies and leisure • music • outings • seasons • sports Themed programmes can be used for a one-off special day or a week-long event, or form the basis of a more sustained regular programme. Example Using the countryside as a specific theme, a number of sub-themes could provide opportunities for physical activity, meeting different needs: • Picnic in the local park – *physical* • Countryside quiz – *cognitive* • Spotting local wildlife – *physical* • Countryside – the written word – *social* • Out and about – visiting local beauty spots – *Physical* • The changing seasons in the countryside – *creative and cognitive* • My favourite place in the country – *reminiscence and communication* • Around the world – climate and countryside – *cognitive* • Countryside customs and traditions – *physical and communication* • Preserving the countryside – environmental concerns – *communication* • A place in the country – visiting country houses – *physical*	***Therapeutic Activities and Older People in Care Settings – A Guide to Good Practice*** By T Perrin. National Association for Providers of Activities for Older People, 2002.

table continues overleaf

- Countryside activities – water, hills and mountains – social
- Countryside cooking and regional recipes – *sensory*
- Video/film club – On Golden Ponds – *social*
- Drawing and painting the country – *creative*
- Country, western and eastern music – *physical and social*
- A day at the seaside – *physical*
- Modern farming and farmers' markets – *physical*

Making the most of the local community and its resources

Many older people fear entering a home and the feeling of being isolated and 'cut off' from life outside. Exploring the potential of each local community and its human and physical resources will provide a range of opportunities for activities that keep older people in touch with their local community. Maximising the resources of the local community can be seen as a two-way process with opportunities to 'get out and about' as well as inviting visitors in for an 'at home' event

Getting out and about

With appropriate transport, a number of activities can be built around the following venues:

- children's playgrounds
- shopping centres, department stores and markets
- libraries and museums
- local parks and picnic spots
- internet cafes
- local further education college beautician school
- cinemas
- leisure centres
- garden centres

Being 'at home'

Experts and enthusiasts with particular interests and skills could be invited to the home. Topics could include:

- gardening and horticulture
- pets and animals
- creative arts (artists in residence)
- celebrity sports personalities and teams
- exercise and health
- local history

Specific opportunities for physical activity as a stand-alone activity

NB *There is some overlap between this section and the equivalent section in Increasing the Circle of Life on page 83. In that many of the activities and opportunities may be appropriate for both groups of older people. Providers identified will be able to offer advice and guidance on the appropriateness of their programmes and the skills and experience of those involved, and any adaptations that may be needed.*

Promoting gardening **PS & IM**	**Thrive** www.thrive.org.uk
Dance and creative movement activities **C, PS & IM** Partnerships with arts and dance agencies can be used to create a variety of dance and movement opportunities for older people	**Dance 4** www.dance4.co.uk **Green Candle Dance Company** www.greencandledance.com **Foundation for Community Dance** www.communitydance.org.uk **Royal Scottish Country Dance Society** www.rscds.org
Progressive chair-based and exercise classes **PS, IM, MSE & F** Several studies have shown that seated exercise is the safest, most effective way of strengthening functional muscle groups. Chair-based exercise programmes are an ideal way to introduce older people to exercise. Mastering basic exercise techniques on the chair gives the person confidence and skill before transferring these moves to standing. The American College of Sports Medicine (1998) recommends that for frailer older people it is better to build up strength before progressing to more dynamic activities However, it is important to note that while chair-based exercise is an excellent way of introducing exercise, the very nature of chair exercise means that what is achievable is limited. To achieve optimal improvements in endurance, balance, co-ordination and the wide range of functional movements involved in everyday life it will be necessary, wherever possible, to progress to supported standing work and finally to free-standing, strengthening and walking activities. Some frailer older people will prefer the security and stability provided by chair-based activities and others will be limited to chair-based activities by their functional limitations Evidence shows that significant improvements in levels of fitness and functional capacity can be achieved when those already taking part in chair or other group exercise sessions can be taught and encouraged to exercise independently on their own	***Alive and Kicking. The Carer's Guide to Exercises for Older People*** By J Sobczak, Age Concern, 2001 Contains Age Concern guidelines (including safety guidelines) on structuring exercise plans and progression for chair exercise leaders and exercise teachers working with older people Also contains working guidelines on safety for chair-exercise leaders and exercise teachers that apply equally to chair-based and standing exercises, for those working with older people. The guidelines focus on preparation as a priority and are divided into six areas: Step 1 A health check Step 2 Optional safety check Step 3 Day-to-day preparation Step 4 Safer, more effective, more enjoyable spaces Step 5 Effective professional relationships Step 6 Education and training for exercise professionals. **Chair-based Exercise Leadership Course** Leicester College T: 0113 229 5512 **Extend** www.extend.org.uk **Excel 2000** www.excel2000.co.uk **Fitness Scotland** www.fitness-scotland.com **Keep Fit Association** www.keepfit.org.uk

table continues overleaf

Independent and assisted walking and mobility
C, PS & IM
Where appropriate, mobilising through regular walking is important for frailer older people and not only provides an opportunity for regular physical activity, but also helps to maintain the individual's contact with friends and other residents

Walking is particularly appropriate for very de-conditioned individuals of all ages and those with additional health problems. For frailer older people, assisted walking is a sensible and recommended way to begin. Many individuals will be unable to progress beyond this assisted walking stage. Others may well go on to walk independently, but independent walking is not recommended initially as it has been shown to be unsafe for this group

As a person becomes older and walking becomes more difficult, there may be a tendency to do as little as possible unless there is a good reason for it. Walking to and fro in a hallway becomes boring very quickly. So thought will need to be given to the motivation for and purpose of walking. For example:

Walking areas
Although not always possible, there may be specific areas and routes that can be designated as familiar walking routes (for example a patio or a garden in a residential home with benches for resting), or a circular route or a specific corridor decorated with attractive paintings and pictures of different places that could provide opportunities to visit different countries or, over a period of time, walk 'round the world'

Promoting walking programmes
Walking programmes can incorporate strategies for individuals and groups to accumulate 'walking miles' by regular measured walks, e.g. the distance of a hallway or the length of a corridor. These distances can be 'converted' into miles and equated with more interesting walking targets, e.g. London to John O'Groats, or to a particular local landmark or event

For those living at home, walking targets and opportunities can relate to everyday living – for example collecting a daily newspaper or posting letters

Chair-based Exercise Leadership Course
Includes training in assisted walking
Leicester College
T: 0113 229 5512

KEY

The following symbols indicate some of the more specific benefits that might be gained as a result of participation in each type of programme:

C = cardiovascular health

F = flexibility

IM = independence and mobility

MSE = muscular strength and endurance

OL = opportunities for learning

PS = psychological and social health

Older people with dementia

Dementia is not an illness but a collective term used to describe the disabilities that can be produced by a range of conditions including impaired memory, disorientation in time and place and difficulties in thinking, comprehension, language and judgement. It is estimated that as many as 75% of people in care homes may have some form of dementia. Each person is unique and will experience dementia in a different way. Although most people with dementia are older, dementia is not an inevitable consequence of ageing and most older people do not have it.

Physical skills are acquired by young people on a developmental gradient that increases exponentially in scope and complexity until maturity. It may be interpreted that dementia is a return down this gradient so that the capacity for performing skills and activities is lost in much the same sequence as it was originally gained.

Providing appropriate activities for older people at different stages of dementia will require the selection of an activity or activities that match the cognitive level of the participant. One such model has been outlined by Perrin and May[15] (who have identified four developmental stages that correspond to the different stages of dementia). The four developmental stages are reflective, symbolic, sensorimotor and reflexive. They also suggest activities that are suitable for each stage (see Table 8).

Theories of play related to movement, liberation, creativity, festivity and fantasy (see p. 94) may also apply to older people with dementia. In particular, play

described as 'free unimpeded movement' can be interpreted as:

- opportunities to be physically active, including vigorous bodily action, dance or display, clapping of hands and concepts associated with images of flitting or fluttering, flickering, glittering, rippling, vibrating and swaying
- activities for amusement or diversion, including sports, games, and musical and dramatic performances.

Motivating older people

Many frail older people may not only have a history of inactivity but also their specific needs and conditions may increase their fear of physical activity and add to the potential barriers to participation (see also Working paper 2 Overcoming barriers on p.133).

However, there are also frailer older people who have positive previous experiences of physical activity and who recognise that, although their health and functional status may impose limitations, continuous participation is important.

In addition to considering these general and specific barriers to physical activity, programmes designed to motivate frailer older people will need to consider individual goal setting:

- preserving activities of daily living and maintaining a degree of independence
- getting out and about (to the residents' lounge, visitors' room or garden)
- social activity and interaction with others.

Involving frailer older people

The interests of frailer older people should be the starting point of programming. Getting to know residents, their abilities, interests and previous life history and experiences will be a starting point to involving them in programming. It is also important to get their views on the relative merits and success of different activities. Individual care plans as well as the views of other staff, family and visitors will also inform this process.

Overcoming concerns and fears

Studies show that older people may lack motivation as they may be concerned about their health and afraid of activity because of the risk of possible injury or harm to themselves, as well as being apprehensive about trying new activities. In spite of understanding the potential benefits, many may shy away from participation. Providing sympathetic leadership and introductions through

demonstrations, taster activities and 'come and observe' opportunities will help to overcome these concerns.

Professionals also express concerns that older people might over-exercise and cause themselves injury. The chances of overexertion are slim as older people have the ability to pace themselves and are most likely to work at a 'moderate' level. Often the reverse is true and the professional will most likely need to encourage the participant to extend their level of involvement (see Safety in physical activity on p. 91).

The influence of significant others

Developing an ethos of support, encouragement and co-operation within the whole care establishment is critical to the promotion of regular opportunities for physical activity. This will require commitment from staff at all levels, including management, professional care and nursing staff, domestic and auxiliary assistants, volunteer visitors and residents' families, and peer support from other residents.

Management will have a key role in ensuring that all those involved (including the activity co-ordinator) have adequate opportunities for planning and training and that programmes are sustained as a regular feature of the life of frailer older people. In addition, decisions taken by managers concerning facilities can be critical, for example:

- the opportunity to provide adequate interruption-free space for activity groups
- choosing seating for residents (its suitability for chair-based exercise)
- the commissioning, planning and design of new facilities.

Building the skills of the workforce through education and training

Because of concerns of 'overdoing it' as well as previous patterns of inactivity and a lack of confidence or lack of motivation, frailer older people require skilled and enthusiastic professionals and volunteers who:

- can motivate and advise them to take up activity
- are appropriately trained to plan and deliver physical activity opportunities or who are aware of other suitable local opportunities.

These will include:

- activity co-ordinators
- managers of residential settings
- professional and volunteer carers
- community nurses and other professionals who visit the older person at home
- senior peer mentors.

Developing the skills of the workforce through training and education provides additional personal and educational benefits for those involved. It may inspire staff to become active themselves, perhaps for the first time. In addition, the importance of those who work with frail older people being 'active role models' should not be ignored.

Training programmes for staff who have a role in promoting physical activity with older people should consist of the following components:

- the benefits of physical activity in optimising independence and improving mental health and social inclusion
- awareness of the impact of falls and falls prevention
- physical activity recommendations for older people
- assessment of an older person's physical ability, using tools and protocols
- adapting physical activity for those with specific health needs
- skills and knowledge to promote physical activity with older people on a one-to-one basis or by leading group activities
- motivating older people to participate
- addressing barriers to participation
- leadership and co-ordination
- consultation with older people and other relevant stakeholders.

Such training may also contribute towards national training strategies, which include training plans for all residential and nursing establishments and the development of training opportunities within the social and care services.

1 USA Department of Health and Human Services. *Physical Activity and Health: A Report of the Surgeon General*. Pittsburgh, PA: USA Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion; 1996.

2 USA Department of Health and Human Services. *Recommendations: Physical Activity Helps Seniors Age Successfully*. Atlanta, GA: Centers for Disease Control and Prevention, Division of Nutrition and Physical Activity; 2005. Available online: www.cdc.gov/nccdphp/dnpa/physical/recommendations/

3 American College of Sports Medicine. Position stand: exercise and physical activity for older adults. *Medicine and Science in Sports and Exercise* 1998; 30(6): 992–1008.

4 Province MA, Hadley EC, Hornbrook MC, Lipsitz LA, Miller JP, Mulrow CD, et al. The effects of exercise on falls in elderly patients: a pre-planned meta-analysis of the FICSIT trials. *Journal of the American Medical Association* 1995; 273: 1341–1347.

5 Eakin EG. Promoting physical activity among middle aged and older adults in health care settings. *Journal of Aging and Physical Activity* 2001; 9: S29–S37.

6 Eakin EG. Promoting physical activity among middle aged and older adults in health care settings. *Journal of Aging and Physical Activity* 2001; 9: S29–S37.

7 Hurtley R, Wenborn J. *The Successful Activity Co-ordinator – Training Pack*. London: Age Concern Books; 2000.

8 Wilcock AA. Keynote paper: biological and sociocultural aspects of occupation, health and health promotion. *British Journal of Occupational Therapy 1993*; 56: 200-203.

9 Eakin EG. Promoting physical activity among middle aged and older adults in health care settings. *Journal of Aging and Physical Activity*, 2001; 9: S29–S37.

10 Hurtley R, Wenborn J. *The Successful Activity Co-ordinator – Training Pack*. London: Age Concern Books; 2000.

11 Wilcock AA. Keynote paper: Biological and sociocultural aspects of occupation, health and health promotion. *British Journal of Occupational Therapy* 1993; 56: 200-203.

12 Hurtley R, Wenborn J. *The Successful Activity Co-ordinator – Training Pack*. London: Age Concern Books; 2000.

13 Wilcock AA. Keynote paper: Biological and sociocultural aspects of occupation, health and health promotion. *British Journal of Occupational Therapy* 1993; 56: 200-203.

14 Perrin T, May H. Developmental model of practice for dementia care. In: *Well-being in Dementia*. London: Churchill Livingstone; 2000.

15 Perrin T, May H. Developmental model of practice for dementia care. In: *Well-being in Dementia*. London: Churchill Livingstone; 2000.

6 Physical activity and the prevention of falls among people in later life

Introduction

This section focuses on the relationship between physical activity and tailored exercise programmes and the prevention and management of falls and fall-related injuries among older adults. This section draws on a number of published reviews and a selected search of the literature and also takes account of information and evidence included in other sections of this resource.

As outlined in Section 1, international research suggests that physical activity in later life has important preventative and therapeutic benefits including:

- disease prevention
- greater mobility, falls and fractures prevention, improved muscle strength
- enhanced well-being and quality of life.

The effect of falls and fall-related injuries

Falls and injuries – the impact on the individual

For many previously fit patients a fall means the loss of full mobility; for some frailer patients it means the permanent loss of the ability to live at home, and for the frailest of all it may bring pain, confusion and disruption to complicate an already distressing last illness.

The consequences of falling include death, injury (the most serious of which is fracture of the proximal femur), fear (of a future fall), institutionalisation, decreased activity, functional deterioration, social isolation, depression and reduced quality of life.[1,2]

Falls and unsteadiness are very common in older people. Approximately 30% of over 65 report a fall in the past year, a figure that rises to over 40% in those over 80, and even higher in the frailest and those with dementia. Falls are a major cause of disability and the leading cause of mortality due to injury in older people aged over 75 in the UK.[3]

The prevalence of falls for men and women is about equal, but men are far less likely to injure themselves. Men are typically 20–30% stronger than women of the same age and have stronger bones.[4]

Even in the absence of falls the fear of falling significantly limits daily activities and increases the risk of admission to care. Osteoporosis can also cause fear, anxiety and depression, particularly in women.[5]

Hip fracture is the most common serious fall-related injury. Hip fracture is becoming more common. Between 1982 and 1998 (the last year for which complete data is available) the number of hip fractures sustained annually in Scotland by people over 55 years of age rose from just over 4000 to 5700, with 80% occurring in women.[6]

Despite significant improvements in both surgery and rehabilitation in recent decades, hip fracture remains a much-feared injury for patients and their carers. Up to 14,000 people a year die in the UK as a result of an osteoporotic hip fracture.[7]

The vast majority of fractures in older women result from falls, including over 90% of hip fractures. After an osteoporotic fracture, 50% of people can no longer live independently.[8]

In total, 80% of those over 80 would rather cease to live than suffer the loss of independence that a hip fracture and subsequent nursing home admittance may bring.

Falls and injuries – a growing concern to the NHS

One-third of people aged 65 and nearly half of those over 80 fall each year and, without effective intervention, demographic trends alone will result in substantial increases in the number of falls, falls injuries and fall-related deaths amongst older adults in the UK.

The care of hip fracture is costly. An average figure of £10,000 for hospital care and the subsequent costs of community support and institutional care for those who need it is widely accepted, with total costs in Scotland probably amounting to around £60 million a year.

The annual cost to the NHS of treating osteoporotic fractures sustained in the absence of major trauma among men and women over the age of 50 is around £1.7 billion. This covers acute costs, social-care costs, long-term hospitalisation, drugs and follow-up, but not the cost to social services and the cost of long-term institutional care. Nearly half of nursing home admissions are due to falls and postural instability.

Risk factors for falls and injuries

The tendency to fall increases with age. Risk factors for falling tend to increase in prevalence with age, leading to more frequent falls. Evidence from cohort studies strongly suggests that the direction of the fall (to the side rather than forward) is critical in determining hip fracture and is also an age-related effect. Poor visual acuity, use of hypnotics, neurological disease and slow gait speed have also been shown to be significant risk factors.[9–11]

Risk factors for falls are of most significance if they are (i) easily identifiable and (ii) potentially reversible. Potentially reversible risk factors (see Table 9) are an obvious target for intervention, provided that the preventative approach is cost-effective. Identifiable risk factors that cannot be reversed might be used to target protective devices.

Table 9 ***Identifiable risk factors for falls (potentially reversible).***

Muscle weakness
Abnormality of gait or balance
Poor eyesight
Drug therapy, e.g. hypnotics, sedatives, diuretics, anti-hypertensives
Neurological disease, e.g. Parkinson's disease, stroke
Foot problems, arthritis
External environment, e.g. uneven footpaths, poor lighting
Home environment, e.g. loose or slippery floor covering, baths without handles

The role of physical activity and tailored exercise in the prevention of falls

Fitness depends on a number of attributes: aerobic fitness, local muscle endurance, muscle strength, muscle speed, flexibility, body composition and motor skills (balance, co-ordination). All of these components of fitness decline with age, but a fair proportion of this decline is in fact due to disuse.[12] This loss of physical function is exponential and will eventually cross a threshold level beyond which a person cannot maintain an independent life.[13] Speed of movement and reaction time are also vital to prevent a trip becoming a fall.

An appropriate exercise programme that helps to reduce the age-related decline in fitness, and particularly training to improve strength, balance and coordination, is highly effective in reducing the incidence of falls among people in later life.[14] Research has shown that physical activity programmes combining

strength, balance and endurance training reduced the risk of falling by 10%; programmes with balance training alone reduced the risk by 25%; however, t'ai chi with individual coaching has been shown to reduce the risk of falling by 47%.[15]

Physical activity can slow down the rate at which bone mineral density is reduced and may therefore delay the progression of osteoporosis.[16] The aim of a physical activity programme for those who have osteoporosis but who have not sustained fractures is to maintain bone strength, prevent fractures, improve muscle strength, balance and posture and thus reduce the risk of falling. The types of activities recommended include weight-bearing activities and site-specific strength training.

For those who have osteoporosis and have sustained fractures, the aim of a physical activity programme is to prevent further fractures, improve muscle strength, balance and posture, reduce and control pain and, importantly, reduce the risk of falling and sustaining further fractures. The types of activities recommended include:

- low-intensity, low-impact activities such as chair-based aerobics and water aerobics
- strength training using short levers and body resistance.

Even those who take up exercise in later years, including frail older people with multiple pathologies and disabilities, can reap significant functional, mental and social benefits from regular physical activity. Significant improvements in functional ability,[17] mobility, depression and mood,[18] strength, urinary urgency and other risk factors for falls can be seen at any age with specific tailored exercise regimes.

The role of physical activity and tailored exercise in helping to cope with a fall

The maintenance of an active life as people age is also important in:

- preserving the functional capability to get up from the floor in the event of a fall, thus preventing a 'long lie'
- helping in the long-term repair from injury
- helping to regain confidence and independence.

Many falls may not lead to an injury but may result in a long lie if the person is unable to get up from the floor unaided. The complications associated with

a long lie include pressure sores, hypothermia, pneumonia, the psychological effects of helplessness or even death.

What type of physical activity is most effective?

As outlined in Section 1, for general health benefit adults should achieve a total of at least 30 minutes a day of at least moderate intensity physical activity on 5 or more days of the week and international research suggests that the recommendations for adults are also appropriate for adults in later life.[19] However, these are general guidelines and a review of evidence by the Department of Health in 2004[20] proposed some important additional considerations that are particularly beneficial for adults in later life. These are summarised in Section 1.

Evidence suggests that exercises classes that are 'general' in nature (i.e. chair-based mobility classes or general keep fit) do improve certain risk factors for falling (i.e. strength); however, they do not reduce the actual risk of a fall or fall-related injury.

Researchers in this area[21] suggest that, for effective falls management in an older group, the physical activity programme should include tailored exercises that are progressive and specific to the following physical components:

- balance
- power
- flexibility
- co-ordination and reaction time
- bone
- strength
- posture
- gait

and that include:

- adapted t'ai chi, coping skills and floor activities.

Most falls are multifactorial in origin and there is now a clear understanding of the risk factors involved. The more risk factors that are present, the greater the risk of falling. Successful interventions are those that address multiple risk factors. A number of randomised controlled trials (RCTs) have studied the use of exercise programmes in the prevention of falls. In most of the trials, exercise was combined with other interventions such as home assessment, dietary change, use of hip protectors, education, cognitive intervention or medication change.[22]

Multifactorial interventions including tailored exercise programmes have been recommended in evidence-based guidelines for the prevention of falls in older people published by a collaboration between the American and British Geriatrics Societies and the American Orthopedic Association.[23]

Specific evidence on the types, amounts and specificity of physical activity programmes for the prevention of falls is unavailable at present; however, evidence from a number of RCTs to date indicate a number of effective interventions that have resulted in a reduction in falls in older people. Home-based programmes to improve strength and balance have been shown to significantly reduce the number of falls and injuries experienced by women in community settings aged 80 years and older.[24] A number of other studies also emphasise the importance of specifically or tailoring of exercise programmes; these are summarised below.

FICSIT programme[25] – the effects of different exercises on falls in the elderly

This programme included a large series of RCTs from seven sites in the USA, each providing an exercise component with a differing focus. Some considered strength training, some endurance and flexibility training and others concentrated on balance training. The combined reduction in the risk of falls for all of the exercise interventions was 10%.

The effect of t'ai chi[26]

This study found that t'ai chi delayed the onset of the first of multiple trips or falls by 50%. It appears that taking up t'ai chi in older age (mid-50s) helps in the maintenance of good balance. A cross-sectional study of long-term (greater than 10 years) regular t'ai chi chuan has shown favourable effects on balance control and flexibility in men aged 65 and over.[27]

Home-based programme of strength and balance exercises[28]

This study showed that an individually tailored and supervised year-long home-based programme of strength and balance exercises (twice per week) and 5 minutes walking (every day) can reduce falls in women aged over 80 without a previous history of falls. The programme has been shown to be effective in reducing the risks of falls and injuries in the over 65s but is only cost-effective in those aged over 80.[29] Interventions targeting those aged over 80 may see more significant changes in quality of life because they are targeting those who fall more frequently, injure more easily and recover more slowly.

§Other studies have highlighted the importance of specificity, showing that not all types of exercise will beneficially affect the number of falls.

A long-term (10-year) follow-up of regular walkers[30]

This study showed that, although the health and mobility of the walkers was better than that of the sedentary group, there was no significant reduction in the number of falls they had compared with the group who did not walk regularly. Other trials considering seated exercise work (exercise bicycles, seated strength training) or forms of exercise concentrating on strength or endurance rather than balance have also been shown not to be effective in reducing falls even if they address certain risk factors.

Similarly, in terms of bone health the evidence is clear: walking can only help maintain bone density if it is regular, frequent and brisk. Swimming is not effective for bone health as the water supports the weight of the body. Bone health needs a site-specific approach to best target the main fracture sites – the wrist, hip and spine. Strength training and weight-resisted exercise are most effective if performed at least three times a week.[31]

Safety issues

Assessment and exercise prescription

To minimise the risk of falling in older adults with postural instability, a functional assessment by qualified, experienced instructors is recommended before participating in any form of physical activity. Emphasis should also be placed on tailored and adapted exercise programmes that take account of functional limitation, and an appropriate level of supervision should by given. These cautionary steps should contribute to better outcome measures for these participants.[32,33]

The use of hip protectors

An important method of reducing injury risk during supervised and unsupervised sessions is the use of hip protector underwear, which has been shown to be effective in the prevention of hip fracture.[34] The pads give both teacher and participant confidence during an exercise session. However, it is known that compliance among older people is poor.

Motivation to take part in strength and balance programmes

Some people reject the idea that they are at risk, either because they are genuinely confident (sometimes overconfident) of their capabilities or because they feel that to accept that they are 'at risk' may stigmatise them as old and frail.

Some people who have fallen do not accept that they are likely to do so again (and could therefore benefit from advice) because they attribute their falls to momentary inattention or illness rather than to a persisting vulnerability.

Rather than focusing on the risk of falls – the very mention of which can be an anathema to older people – and the possible consequences, it is better to stress the benefits of improving strength and balance. Activity carried out to improve balance is likely to be seen as socially acceptable and relevant by a wide range of older people, whereas hazard reduction, which many older people take to mean restricting activity, is not.

Many older people are receptive to messages about the positive benefits of exercises that improve balance, strength and mobility. They are likely to welcome support and encouragement that helps them make this kind of exercise an enjoyable, habitual part of daily life, especially if they are given explanations for the advice offered.

The benefits of physical activity extend above and beyond falls prevention. Disease prevention and amelioration, maintenance of independence and prevention of disability and improved mental health are added bonuses for those who take part in regular physical activity.[35]

Falls prevention in Scotland

In recent years, work to address falls prevention has seen a number of new developments in Scotland.

Adding Life to Years

The Adding Life to Years[36] report considered falls and fractures as one of the four major health problems faced by people in later life and made the following recommendations to address this issue and improve the care of people in later life in NHS acute and primary care services:

- all older people should be asked annually if they have fallen in the past year

- in those who have fallen once only, balance and gait should be assessed by the Get Up and Go test (a simple test screening for instability and mobility problems)
- all who report recurrent falls, appear unsteady or who have difficulty with the Get Up and Go test, and all presenting for medical attention with a fall, should undergo multidisciplinary evaluation
- NHS boards should ensure that falls assessment services are available and that these provide interventions of proven effectiveness, tailored to community or care home settings
- osteoporosis management should be an important part of any falls assessment.

Health Scotland has led the way in highlighting falls prevention evidence and practice, particularly in relation to the role of physical activity, to practitioners working in this area. In 2001, HEBS (now Health Scotland), following the publication of *The Construction of the Risks of Falling in Older People: Lay and Professionals Perspectives* (Scottish Health Feedback; 1999),[37] a research project commissioned by HEBS, established an expert group to look at the prevention of falls in older people. The group established three areas of work:

- public awareness resources
- education and training for falls prevention
- proposals for 'a pathway for management of older people living in the community who fall'.

Health Scotland has taken the lead in supporting and developing this work further in partnership with a range of health, social care and voluntary sector agencies and practitioners across Scotland.

Taking Positive Steps to Avoid Slips, Trips and Falls

In 2002, a Falls Prevention Conference was held to highlight falls prevention evidence and practice to practitioners working in this area, and a new resource Taking Positive Steps to Avoid Slips, Trips and Falls in the form of a video, booklet and poster was launched and distributed to around 5000 practitioners across Scotland in 2003. This resource has a specific section on the promotion of physical activity and on the role of strength and balance exercises in the prevention of falls. An evaluation of this programme was undertaken in 2003 to determine its use by the organisations that received it and the impact it has had. Future work to develop this area further includes a training needs assessment and the subsequent development of falls prevention awareness training.

Osteoporosis – Prevention and Advice

Osteoporosis is itself a risk factor for fracture. and a sedentary lifestyle contributes to osteoporosis risk and also to the risk of falling. Health Scotland, in partnership with SIGN (Scottish Intercollegiate Guidelines Network), developed *Osteoporosis – Prevention and Advice* (revised 2007), an patient information leaflet on the prevention and treatment of osteoporosis including the physical activity recommendations. A new clinical guideline, *Management of Osteoporosis,* was also launched in 2003.[38]

Working with dependant older people towards promoting movement and physical activity

Health Scotland, in partnership with the Gerontology Nursing Demonstration Project, have developed an evidence-based practice statement on promoting physical activity with people in later life within the residential care setting. This project will inform the development of future resources and training for staff working on promoting movement and physical activity with dependant older people in residential care. A dissemination strategy will include all care homes in Scotland, the Care Commission in line with care home standards and other interested organisations and practitioners.

Movin' Aboot'

Movin' Aboot', a voluntary organisation in the north-east of Scotland and Grampian, provides training programmes for staff and volunteers working in a caring/nursing environment, including day centres, lunch clubs, community groups, hospitals, care homes and sheltered housing complexes. Training is offered to enable those working with less active older people to deliver basic safe and appropriate physical activity programmes promoting movement and exercise.

Exercise and Older People in Fife

Older people who live in care homes in Fife are benefiting from several opportunities to be physically active. Since 1992, Fife Council, in partnership with St Andrews University and NHS Fife, has provided a training programme aimed at those who provide care for older people. Exercise and Older People combines training and ongoing support to help care home staff promote physical activity. The course also attracts social services, health services and those working in the voluntary and private sector. Since it began, over 300 staff have taken part in the training course, which is delivered by people involved in all areas of care for

older people. There is now a growing network of activity leaders for older adults across Fife.

Workforce development

A very broad range of staff could potentially help develop physical activity in Scotland and, through the delivery of both basic and specific physical activity programmes such as those described above, a wide range of practitioners could contribute to the prevention and management of falls among adults in later life. Currently, there are limited professional development opportunities available in physical activity, especially in relation to promoting physical activity with people in later life and, in particular, activity that focuses on the prevention and management of falls.

Health Scotland has identified three broad categories of practitioners as having a role to play in promoting physical activity. These are:
Group 1: those who promote activity as a core part of their work
Group 2: those for whom it forms a key part of their work but is not their main focus
Group 3: those who play a supporting role in the promotion of physical activity.

A workforce development plan for the promotion of physical activity in later life should address the need for knowledge, awareness and skill development in relation to the prevention and management of falls as a key component and consider these aspects in relation to the potential role of those in Groups 1–3:

- Knowledge: practitioners have accurate evidence-based advice/guidance.
- Awareness: the public are given a consistent message and have access to information.
- Basic skills: practitioners can deliver basic physical activity interventions that can improve certain risk factors for falling.
- Specialist skills: practitioners can assess individuals at a greater risk of falling and address multiple risk factors through appropriate, specific, tailored and progressive exercise interventions.

Health Scotland is currently co-ordinating training and development opportunities for physical activity so that every practitioner in Scotland can access appropriate, affordable, good quality training and development.

Summary

- Falls and fall-related injuries among adults in later life are a major public health issue.
- The tendency to fall increases with age. Risk factors for falling tend to increase in prevalence with age, leading to more frequent falls.
- Some of the risks factors for falling are modifiable with exercise.
- An appropriate exercise programme that helps to reduce the age-related decline in fitness, and particularly training to improve strength, balance and coordination, is highly effective in reducing the incidence of falls among people in later life.
- Even those who take up exercise in later years, including frail older people with multiple pathologies and disabilities, can reap significant functional, mental and social benefits from regular physical activity.
- Multifactorial interventions, including tailored exercise programmes, have been recommended in evidence-based guidelines for the prevention of falls in older people.
- Health Scotland has led the way in highlighting falls prevention evidence and practice, particularly in relation to the role of physical activity, to practitioners working in this area.
- A workforce development plan for the promotion of physical activity in later life should address the need for knowledge, awareness and skill development in relation to the prevention and management of falls as a key component.

Resources for further information

Key websites

www.helptheaged.org.uk: for details of National Falls Day (June) and resources for professionals and older people.
www.nice.org.uk: for details of the NICE guidelines on the assessment and prevention of falls in older people.
www.profane.eu.org: an online community and an active working group of health-care practitioners, researchers and public health specialists dedicated to the prevention of falls in Europe and beyond.
www.laterlifetraining.co.uk: for details of exercise training courses for preventing falls among frailer, older people and resources and research articles.
www.taichifinder.co.uk: t'ai chi finder for classes, videos, workshops and events. Tel: 0845 890 0744.

Educational materials

Active For Life Falls Prevention Programme

This consists of:

- a falls prevention programme strategy for the primary care organisation or hospital on CD-ROM
- two 90-minute videos specifically produced to promote falls prevention and management among frail older people
- *Active for Life Falls Prevention* – a booklet that includes advice on home assessment and adaptation to prevent falls; diet and regular physical activity; and family and carer support
- Active for Life posters for display in GP surgeries and hospital waiting rooms

Available from: Classroom Multimedia Ltd, PO Box 1489, Bristol BS99 4QJ. Tel: 0117 940 6409. Available online: www.active-for-life.com

Golden Ball T'ai Chi video and booklet

Master Lam Kam Chuen. *The Gentle Way to Health and Well-Being*. The Lam Associates: London; 2002. Available from: Jane Ward, Flat 4, 53 Tollington Park, London N4 3QP. Email: janeward@gn.apc.org

Step to the Future exercise video and DVD

Step to the Future is a new programme of exercises from Help the Aged. Presented by Seona Ross, and advised by postural stability experts Sheena Gawler and Susie Dinan, this programme of aerobic endurance and strength exercises is designed to keep older people active into later life. The DVD is also available in Hindi. The VHS and DVD are available to order through Help the Aged home shopping (tel: 0870 7700441) quoting product codes N2701 (VHS) or N2702 (DVD). Alternatively, click on the picture to order by Internet.

Be Strong, Be Steady

Strength and balance exercises for healthy ageing from Help the Aged. This video contains a programme of chair-based and standing exercises devised specifically for older people. The programme is introduced by people who describe the important role that exercise plays in their lives. Each exercise is demonstrated by a specialist and then performed in real time by older people. For details of how to obtain this video and other resources please visit the website www.helptheaged.org.uk/ or telephone 0870 770 0441. Translations of the video into Bengali, Punjabi and Cantonese are also available.

Books and reports

Cryer C, Patel S. Falls, *Fragility and Fractures. National Service Framework for Older People: The Case for and Strategies to Implement a Joint Health Improvement and Modernisation Plan for Falls and Osteoporosis.* London: Alliance for Bone Health; 2001.

Department of Health. *National Service Framework for Older People: Modern Standards and Service Models.* London: Department of Health; 2001.

Rose DJ. *Fall Proof!* Champaign, IL: Human Kinetics; 2003.
A comprehensive balance and mobility training programme. Available from Human Kinetics. Tel: 0113 255 5665. Email: hk@hkeurope.com. Website: www.HumanKinetics.com

Scottish Health Feedback. *The Construction of the Risks of Falling in Older People: Lay And Professional Perspectives.* Edinburgh: Health Education Board for Scotland; 1999.
A research project commissioned by HEBS.

Simey P, Pennington B. P*hysical Activity and the Prevention and Management of Falls and Accidents among Older People: Guidelines for Practice.*
London: Health Education Authority; 1999. Available online: www.hda-online.org.uk/documents/
Yardley L, Todd C. *Encouraging Positive Attitudes to Falls Prevention in Later Life*. London: Help the Aged; 2005.

Key selected journal articles

American Geriatrics Society, British Geriatrics Society and American Academy of Orthopaedic Surgeons on Falls Prevention. Guidelines for the prevention of falls in older persons. *Journal of the American Geriatrics Society* 2001; 49: 664–672.

Campbell AJ, Robertson MC, Gardner MM, Norton RN, Tilyard MW, Buchner DM. Randomized controlled trial of a general practice programme of home based exercise to prevent falls in elderly women. *British Medical Journal* 1997; 315: 1065–1069.

Feder G, Cryer C, Donovan S, Carter Y. Guidelines for the prevention of falls in people over 65. *British Medical Journal* 2000; 321: 1007–1011.

Province MA, Hadley EC, Hornbrook MC. The effects of exercise on falls in elderly patients. A preplanned meta-analysis of the FICSIT trials. *Journal of the American Medical Association* 1995; 273: 1341–1347.

Robertson MC, Gardner MM, Devlin N, McGee R, Campbell AJ. Effectiveness and economic evaluation of a nurse delivered home exercise programme to prevent falls. 1: Randomised controlled trial and 2: controlled trial in multiple centres. *British Medical Journal* 2001; 322: 1–5, 697–701.

Simpson JM, March N, Harrington R. Guidelines for managing falls among elderly people. *British Journal of Occupational Therapy* 1998; 61(4): 165–168.

Skelton DA, Dinan SM. Exercise for falls management: rationale for an exercise programme to reduce postural instability. *Physiotherapy: Theory and Practice* 1999; 15: 105–120.

Skelton DA, Dinan SM. Exercise, falls and injury prevention in older people. *Osteoporosis Review* 2001; 9(4): 1–5.

Skelton DA, Dinan SM, Campbell MC, Rutherford OM. Tailored group exercise (falls management exercise – FaME) reduces falls in community-dwelling older frequent fallers (an RCT). *Age & Ageing, Oxford Journals* 2005; 34(6): 636–639. (Available online.)

Tinetti M, Doucette J, Claus E, Marottoli R. Risk factors for serious injury during falls by older persons in the community. *Journal of the American Geriatrics Society 1995*; 43: 1214–1221.

Wolf SL, Barnhart HX, Ellison GL, Coogler CE. The effect of Tai Chi Chuan and computerized balance training on postural stability in older subjects. *Physical Therapy* 1997; 77(4): 371–381.

Training and education for falls prevention

Training qualifications for those working with older people are listed under Training in the Information directory. However, a limited number of courses have been designed specifically to address the needs of frailer older people and falls prevention and management. These are described below.

Exercise for the Prevention of Falls and Injuries – training for postural stability instructors (Later Life Training Ltd)

An Exercise for the Prevention of Falls and Injuries session is an appropriate onward referral option for people who have participated in a hospital-based physiotherapy rehabilitation class or for people living in the community with a history of falls or fear of falling. The sessions include dynamic balance training, floor work and coping strategies as well as core components of strength and endurance. These sessions are effective at reducing trips and falls.

This is a 7-day course, post-NVQ (National Vocational Qualification) Level 3, of 100 hours including contact time. It is designed for qualified, experienced health and exercise professionals working with frailer older people.

It has an interdisciplinary approach and includes the prevalence and consequences of falls and fractures; costs, demographic trends and the implications for independence and quality of life; management of medical conditions; medications; and exercise programming related to participants with a history or fear of falling. The course is older-person specific but the practical programming principles can be widely applied.
For further details contact Later Life Training Ltd, Mountgreenan, Strath Fillan, by Crianlarich, Stirlingshire FK20 8RU. Tel: 01838 3000310. Email: info@laletrlifetraining.co.uk. Website: www.laterlifetraining.co.uk

The Otago Exercise Programme Leaders Award (Later Life Training Ltd)

This is a training course and qualification for health and exercise professionals in the delivery of the evidence-based Otago Strength And Balance Exercise Programme (OEP) for frailer, older people.

The course consists of the 24 OEP exercises, designed to prevent falls and improve balance, strength and confidence, that made up the original OEP home exercise study design. There are some additional warm-up and cool-down exercises to ensure that current international guidelines are followed. The specific order and progression for each exercise is predetermined for OEP.

The course runs over 4 full days (9am–5pm): 3 course days followed by a 1-day assessment. The course runs over a minimum of 4 weeks to allow task-oriented practice before the assessment. Participants are provided with a *How to Lead* manual developed by Later Life Training. The qualification has been aligned with NVQ Level 2 in Care and NVQ Level 2 in Exercise and Fitness.

It is anticipated that successful candidates will deliver sessions either working within the therapies in a hospital-based programme or leading falls and injury prevention sessions in community settings as part of a local health improvement plan or onward referral from the falls or care of the elderly rehabilitation setting. Successful candidates will receive a Later Life Training qualification certificate (Otago Exercise Programme Leaders Award).

For further details contact Later Life Training Ltd, Mountgreenan, Strath Fillan, by Crianlarich, Stirlingshire FK20 8RU. Tel: 01838 3000310. Email: info@laterlifetraining.co.uk. Website: www.laterlifetraining.co.uk

Chair-based Exercise Leadership course (Leicester College)

A chair-based exercise class can improve many risk factors for falls (e.g. strength and flexibility) but does not include dynamic balance training and is not the most effective form of exercise for falls prevention. However, it is appropriate in nursing, residential and sheltered housing settings, or for those people who have very low levels of strength and endurance.

Leicester College offers a 32-hour course (4 days plus contact hours) designed for health-care and other professionals wishing to deliver 17 chair-based exercises to frailer older people. It is also appropriate for qualified exercise teachers holding a NVQ Level 2 in Exercise and Fitness, and wishing to undertake specific evidence-based exercises with chair-based, frailer older participants. The course is older-person specific and is designed for those working under the supervision of a multidisciplinary team.
For further details contact Leicester College, Freeman's Park Campus, Aylestone Road, Leicester LE2 7LW. Tel: 0116 229 5555. Email: jlicata@lec.ac.uk or s4b@leicestercollege.ac.uk. Website: www.leicestercollege.ac.uk/s4b

Extend Diploma in Movement to Music for the Over-60s and Disabled People of All Ages (Extend Exercise Training)

Extend sessions vary widely in their settings and in the functional level of participants. Seated exercise sessions are appropriate in nursing, residential and sheltered housing settings but will reduce risk factors only. When prevention of falls is the focus, people living in the community with mild deficits of strength and balance can be appropriately referred into the more active community-based Extend sessions. It is not appropriate to send a person with a history of falls and injury to an Extend session unless the instructor is qualified to take Exercise for the Prevention of Falls and Injuries classes.

Extend Exercise Training offers a progressive programme to promote quality of life for the over-60s and for less able people of any age. The Extend Diploma in Movement to Music for the Over-60s and Disabled People of all Ages is a 12-day training course (100 hours including contact time). The training is older-person specific. It is currently being aligned with NVQ Level 3.

For further details contact Extend Exercise Training, 2 Place Farm, Wheathampstead, Hertfordshire AL4 8SB. Tel: 01582 832760. Email: admin@extend.org.uk. Website: www.extend.org.uk

Mature Movers Seated Exercise Certificate (Keep Fit Association)

A 60-hour seated exercise course designed for health-care and other residential setting professionals. The course is aligned with NVQ Level 2 in Health Care. Assessment takes place in the workplace.

For further details contact Keep Fit Association, Astra House, Suite 1.05, Arklow Road, London SE14 6EB. Tel: 020 8692 9566. Email: Kfa@keepfit.org.uk. Website: www.keepfit.org.uk

Organisations

National Osteoporosis Society
Camerton
Bath BA2 0PJ
Tel: 01761 471771
www.nos.org.uk

Royal Society for the Prevention of Accidents (RoSPA)
Edgbaston Park
ROSPA House
53 Bristol Road
Edgbaston
Birmingham B5 7ST
Tel: 0121 248 2000
www.rospa.co.uk

UK PAPOFF
ISPAPOFF Secretariat
Postgraduate Education Centre
Nottingham City NHS Trust
Hucknall Road
Nottingham NG5 1PB
Tel: 0115 962 7758

UK PAPOFF is the UK branch of the International Society of Physical Activity for the Prevention of Osteoporosis, Falls and Fractures. It is a multidisciplinary scientific society encouraging research in the field of osteoporosis, falls and fractures. It produces a newsletter, which includes research updates, and hosts an annual conference.

1 Tinetti M, Doucette J, Claus E, Marottoli R. Risk factors for serious injury during falls by older persons in the community. *Journal of the American Geriatrics Society* 1995; 43: 1214–1221.

2 Feder G, Cryer C, Donovan S, Carter Y. Guidelines for the prevention of falls in people over 65. The Guidelines Development Group. *British Medical Journal* 2000; 321: 1007–1011.

3 National Institute for Clinical Excellence. *Falls – Clinical Guideline*. Second consultation. London: National Institute for Clinical Excellence; 2004.

4 Rutherford OM. Is there a role for exercise in the prevention of osteoporotic fractures? *British Journal of Sports Medicine* 1999; 33: 378–386.

5 Salkeld G, Cameron ID, Cumming RG, Easter S, Seymour J, Kurrle SE, et al. Quality of life related to fear of falling and hip fracture in older women: a time trade off study. *British Medical Journal* 2000; 320: 341–345.

6 Scottish Intercollegiate Guidelines Network (SIGN). *Prevention and Management of Hip Fracture in Older People.* SIGN publication No. 56. Edinburgh: SIGN; 2002.

7 Melton LJ III. Epidemiology of fractures. In: Riggs BL, Melton III LJ (eds). *Osteoporosis: Etiology, Diagnosis and Management*. New York: Lippincott Williams and Wilkins; 1988: pp.133–154.

8 Department of Health. *National Service Framework for Older People.* London: Department of Health; 2001.

9 Grisso JA, Kelsey JL, Strom BL, Chiu GY, Maislin G, O'Brien LA, et al. Risk factors for falls as a cause of hip fracture in women. The Northeast Hip Fracture Study Group. *N ew England Journal of Medicine* 1991; 324: 1326–1331.

10 Dargent-Molina P, Favier F, Grandjean H, Baudoin C, Schott AM, Hausherr E, et al. Fall-related factors and risk of hip fracture: the EPIDOS prospective study. *Lancet* 1996; 348: 145–149.

11 Gillespie LD, Gillespie WJ, Cumming R, Lamb SE, Rowe BH. Interventions for preventing falls in the elderly. Cochrane Review *The Cochrane Library* Issue 2. Oxford: Update Software; 2001.

12 Skelton, D. Effects of physical activity on postural stability. *Age and Ageing* 2001; 30: S33–S39.

13 Young A, Dinan S. Active in later life. In: McLatchie G (ed.) *ABC of Sports Medicine. British Medical Journal* Books; 2000: pp. 51–55.

14 Gillespie LD, Gillespie WJ, Cumming R, Lamb SE, Rowe BH. Interventions for preventing falls in the elderly. Cochrane review *The Cochrane Library* Issue 2. Oxford: Update Software; 2001.

15 Province MA, Hadley EC, Hornbrook MC, Lipsitz LA, Miller JP, Mulrow CD, et al. The effects of exercise on falls in elderly patients: a pre-planned meta-analysis of the FICSIT trials. *Journal of the American Medical Association* 1995; 273: 1341–1347.

16 Vuori IM. Dose-response of physical activity and low back pain, osteoarthritis, and osteoporosis. *Medicine and Science in Sports and Exercise* 2001; 33: S551–S586; discussion S609–S610.

17 Skelton DA, McLaughlin A. Training functional ability in old age. *Physiotherapy* 1996; 82(3): 159–167.

18 British Heart Foundation National Centre for Physical Activity and Health. Review 1: Benefits of Physical Activity on Psychological *Well-Being for Older Adults*. Loughborough: British Heart Foundation; 2001.

19 Pate RR, Pratt M, Blair SN, Haskell WL, Macera CA, Bouchard C, et al. Physical activity and public health: a recommendation from the Centers for Disease Control and Prevention and the American College of Sports Medicine. *Journal of the American Medical Association* 1995; 273: 402–407.

20 Department of Health, Physical Activity, Health Improvement and Prevention. *At Least Five a Week. Evidence on the Impact of Physical Activity and its Relationship to Health: A Report from the Chief Medical Officer.* London: Department of Health; 2004.

21 Skelton DA, Dinan SM. Exercise for falls management: rationale for an exercise programme to reduce postural instability. *Physiotherapy: Theory and Practice* 1999; 15: 105–120.

22 *Preventing Falls and Subsequent Injury in Older People*. Effective Health Care Bulletin Vol. 2 No.4. University of York: NHS Centre for Reviews and Dissemination; 1996.

23 Guideline for the prevention of falls in older persons. American Geriatrics Society, British Geriatrics Society, and American Academy of Orthopaedic Surgeons Panel on Falls Prevention. *Journal of the American Geriatric* Society 2001; 49: 664–672.

24 Gardner et al. Exercise in preventing falls and fall related injuries in older people: a review of randomised controlled trials. *British Journal of Sports Medicine* 2000; 34: 7–17.

25 Province MA, Hadley EC, Hornbrook MC, Lipsitz LA, Miller JP, Mulrow CD, et al. The effects of exercise on falls in elderly patients: a pre-planned meta-analysis of the FICSIT trials. *Journal of the American Medical Association* 1995; 273: 1341–1347.

26 Wolf SL, Barnhart HX, Ellison GL, Coogler CE. The effect of Tai Chi Quan and computerized balance training on postural stability in older subjects. *Physical Therapy* 1997; 77: 371–381.

27 Hong Y, Xian Li J, Robinson PD. Balance control, flexibility and cardiorespiratory fitness among older Tai Chi practitioners. British Journal of Sports Medicine 2000; 34: 29–34.

28 Campbell AJ, Robertson MC, Gardner MM, et al. Randomized controlled trial of a general practice programme of home based exercise to prevent falls in elderly women. *British Medical Journal* 1997; 315: 1065–1069.

29 Robertson MC, Gardner MM, Devlin N, McGee R, Campbell AJ. Effectiveness and economic evaluation of a nurse delivered home exercise programme to prevent falls. 1: Randomised controlled trial and 2: controlled trial in multiple centres. *British Medical Journal* 2001; 322: 1–5, 697–701.

30 Pereira MA, Kriska AM, Day RD et al. A randomised walking trial in postmenopausal women: effects on physical activity and health 10 years later. *Archives of Internal Medicine* 1998; 158: 1695–1701.

31 Rutherford OM. Is there a role for exercise in the prevention of osteoporotic fractures? *British Journal of Sports Medicine* 1999; 33: 378–386.

32 Department of Health. *National Service Framework for Older People: Modern Standards and Service Models.* London: Her Majesty's Stationery Office; 2001.

33 Dinan SD. Exercise for vulnerable older patients. In: Young A, Harries M (eds) *Physical Activity for Patients: An Exercise Prescription*. London: Royal College of Physicians; 2001.

34 Kannus P, Parkkari J, Niemi S, et al. Prevention of hip fracture in elderly people with use of a hip protector. *New England Journal of Medicine* 2000; 343: 1506–1513.

35 Yardley et al. *Encouraging Positive Attitudes to Falls Prevention in Later Life.* London: Help the Aged; 2005.

36 Scottish Executive. *Adding Life to Years: Report on the Expert Group on Health Care of Older People. Edinburgh:* Scottish Executive; 2002.

37 Scottish Health Feedback. *The Construction of the Risks of Falling in Older People: Lay and Professional Perspectives*. Edinburgh: HEBS; 1999. Available online: www.hebs.scot.nhs.uk/services/pubs/

38 Scottish Intercollegiate Guidelines Network (SIGN). *Management of Osteoporosis*. SIGN publication No. 71. Edinburgh: SIGN; 2003.

Working paper 1

Involving older people

There is agreement that involving local communities and older people in developing strategies and action plans improves the quality and effectiveness of programmes. This process of participation and involvement requires a closer collaboration with communities and those people who are able to provide insights into local issues and needs and into the appropriateness and acceptability of policies, strategies and provision. Moreover, it is often argued that health-care organisations and professionals rarely consider the views of users and that the user's perspective can differ significantly from that of the professional.

Why community participation?

The arguments to support greater community participation include:

- poor utilisation of services because of a lack of community involvement
- the economic argument that all available resources should be utilised
- health education is more effective when people are involved in actually doing things themselves
- the social justice argument that people should be involved in decisions that affect them.

Central to the concept of community participation are the key themes of community development and people's participation and empowerment.

Definition of terms

Difficulties can often arise from the use of the terms community and participation.

Community is often defined in terms of geography, despite evidence that geography is often a weak factor in defining common interests. People living in the same area do not necessarily have the same interests or views; such groups are not homogeneous.

For participation there is a need to distinguish between mobilisation (which may be described as getting people to do what professionals think is best) and involvement (where by people actively decide what they think is best and professionals contribute expertise and resources to implement this decision).

These problems have been summarised by Cohen and Uphoff:[2]

- Participation is not a single thing.
- Participation is not solely an end, but is more than a means.
- Participation is not a panacea for community problems.
- Participation in development is not the same as participation in politics.
- Participation in development is, however, inescapably political.

Experience suggests that participation is best seen as an ongoing, adaptive and dynamic process.

Levels and stages of participation

The exact nature of community participation as a process has been described as a continuum that can extend from tokenism – where by local representatives are chosen and asked about decisions but have no real input or power – to opportunities for older people to set their own agenda and mobilise to carry it out, in the absence of outside initiators and facilitators (Table 10).

Table 4 ***Levels of participation***

Adapted from Cornwall (1996)[3]

Mode of participation	Involvement of older people	Relationship between action and people
Co-option	Token involvement Representatives are chosen but have no real input or power	On
Compliance	Tasks are assigned, with incentives Outsiders decide the agenda and direct the process	For
Consultation	Local opinions are sought. Outsiders analyse and decide on a course of action	For/with
Co-operation	Older people work with outsiders to determine priorities. Responsibility for directing the process remains with outsiders	With
Co-learning	Older people and outsiders share their knowledge to create new understanding, and work together to form action plans, with outsider facilitation	With/by
Collective action	Older people set their own agenda and mobilise to carry it out, in the absence of outside initiators and facilitators	By

Participatory research methods

Participatory action research is research that involves all those concerned with the outcome in the entire research process from planning to evaluation. It focuses on the involvement of people who traditionally have been objects, not subjects of research and considers a major objective to be to empower them through this process.

Rapid appraisal methods are extensively used to understand health and social needs and as a basis for developing policy, strategy and services.

Community profiling is a term that is used to describe a participatory approach to planning. It emphasises:

- the use of researchers drawn from the local community
- revisiting the community to confirm findings and to explore the implications of those findings for the local community and for service providers.

There is no single model for participatory action research but common elements include[4]:

- working with local people to decide what information is needed
- working with local people to decide how to obtain the information
- deciding who should collect the information
- analysing the information
- checking findings with key informants and against local knowledge
- selecting priorities for action
- planning the actions and outcomes
- monitoring the plan
- evaluation.

Findings from the Better Government for Older People programme

Significant knowledge about the participation of older people has been achieved through the 2-year action research programme developed by the Better Government for Older People programme.[5] The aim of the programme was to improve public services for older people by better meeting their needs, listening to their views, and encouraging and recognising their contribution. The key lessons from the programme are summarised opposite.

Listening to older people through consultation

What works?

- Encouraging and valuing the contribution of participants.
- Seeking the views of local people on a wide range of issues.
- Seeking to involve a broad spectrum of people from the target population
- Choosing appropriate consultation methods for the topic and the target group.
- Investing in consultation.
- Following up consultations with feedback and action.
- Setting in place mechanisms for ongoing consultation and involvement.

Engaging with older people

What works?

- Support for existing groups to develop activities and widen membership.
- Community development support to widen engagement.
- Older people's advisory groups and forums to drive forward change.
- Funding to value older people's contribution.
- Developing staff capacity to fully engage with older people.

Better meeting the needs of older people through improved information

What works?

- Co-ordinated 'person-based' information, face-to-face and by telephone.
- Outreach information and benefits sessions in community venues.
- Creative ways of targeting publicity to older people.
- Older people actively contributing to the producing and giving of information.
- Information technology, if used alongside older people and linked to appropriate training.
- Local flexibility for joint working between managers and front-line staff.

Better meeting the needs of older people through delivering services differently

What works?

- A range of services providing flexibility to meet individual needs.
- Helping with mobility to improve older people's independence.
- Older people contributing to getting services right first time.
- Managers and front-line staff receiving motivation and training for joint working.

Promoting active ageing – new opportunities

What works?

- Accessible IT opportunities to attract a lot of older people.
- Offering a range of opportunities to appeal to diverse interests.
- Publicity and support services (e.g. transport) to enable participation.
- Small-scale, local projects to encourage innovation and creativity.
- Involving older people in deciding on priorities to encourage participation.

Tackling ageism and promoting positive images

What works?

- Holding a local older people's event to promote positive images.
- Showing how older people contribute as active participants in their communities.
- Building partnerships with the local press to challenge media stereotypes.
- Introducing age-diversity policies into local authorities' own employment practices.

Communication strategies

A variety of strategies and methods can be used to improve communication and increase the involvement of older people. For example:

- maximising the opportunities provided by existing older people's forum groups
- creating older people's councils, panels or advisory groups
- using small-group or face-to-face interviews and other group-work techniques
- organising conferences and special 'listening' events
- using mobile teams, road shows and information services
- using peer-mentor researchers and volunteers
- outreach work among specific community groups, e.g. elders from ethnic communities
- using new communication methods, e.g. drama and creative writing
- creating more new communication channels, e.g. letter writing, an internet network or a telephone network.

Summary

- Make sure that older people have their say and are listened to.
- Older people have a wealth of experience to share
- Listening to older people demands a significant investment of resources and time
- Perhaps the most critical issue is the extent to which agencies can turn listening into action

1 Nichols V. *The Role of Community Involvement in Health Needs Assessment in London.* London: Health Education Authority; 1999.

2 Cohen J, Uphoff N. Participation's place in rural development: seeking clarity through specificity. *World Development* 1980; 8: 213–235.

3 Cornwall A. Towards participatory practice: participatory rural appraisal (PRA). In: de Koning D, Martin M (eds). *Participatory Research in Health*: Issues and Experiences. London: Zed Books; 1996.

4 Health Education Authority. *Promoting Physical Activity. Guidance for Commissioners, Purchasers and Providers.* London: Health Education Authority; 1995.

5 Better Government for Older People. *All Our Futures – The Reports of the Better Government for Older People Programme.* Coventry: University of Warwick; 2000.

Working paper 2

Overcoming barriers

An important question for those involved in promoting physical activity with older people is how older people can best be encouraged to incorporate more physical activity into their lives. To do this we must understand why older people do and do not participate in physical activity and identify some of the mechanisms and triggers that may initiate the adoption of physically active lifestyles, even in the later years.

Changing behaviour

A number of theories and models have been developed to attempt to explain health behaviour change. A summary of these models can be found in Dishman.[1]

The models share a number of common features that appear to influence behaviour change. These include:

- the value an individual places on the outcome
- the individual's belief about their ability to control their behaviour (self-efficacy)
- the need for reinforcement and support.

However, these models may place too much emphasis on the individual's motivation to change and ignore the impact of the wider environment on change. As the environment provides a strong moderating effect on individual behaviour, the importance of policy and environmental strategies to complement interventions focusing on individual change cannot be overstated. For example, limited access to safe walking routes may be a barrier to participation even when someone is keen to increase their level of walking.[2]

Evidence suggests that effective strategies to support individual behaviour change are influenced as much by the qualities and interpersonal skills of the helper working with them (e.g. a peer mentor, health visitor, practice nurse or exercise teacher) as the theoretical model or intervention style used.

Identifying barriers

There is a wide range of barriers to physical activity for the older person. These barriers can be intrinsic (internal) and extrinsic (external).

Intrinsic barriers are those that relate to the individual's beliefs, motives and experiences concerning physical activity. These are most likely to be addressed by those who work directly with older people in providing counselling, advice,

motivation, education and programme planning – for example, a peer mentor, exercise teacher, health visitor or GP.

Extrinsic barriers are those that relate to the broader physical activity environment, the skills and attitudes of others, the types of opportunities that are available, access and safety. These barriers are more likely to be addressed by those responsible for policy and strategic developments.

Individual differences

Older people are not a homogeneous group and among the older population there are significant individual differences in attitudes to, motivation towards and barriers to physical activity. Motivation towards physical activity is likely to be influenced by many factors as discussed below.

Earlier experiences

Earlier experiences may have shaped attitudes towards health, old age and physical activity.

Cultural or religious reasons

Although there are no cultural or religious reasons prohibiting people from ethnic communities from taking part in physical activity, ethnic origin and culture can influence the mode of participation and the type of facilities required.

Gender

Men and women have different attitudes towards physical activity, particularly after retirement.

Self-image

Many older people see becoming older, a decline in capacity and increasing disability as the inevitable consequences of ageing.

Time barriers

Different roles and interests at different stages in later life (e.g. looking after grandchildren, travel, volunteering) may mean that the amount of disposable or free time changes or may even decrease over time.

Immediate access to opportunities

- The proximity of opportunities and facilities.
- The perception of physical activity: the individual's perception of physical activity is formed by a combination of intrinsic barriers and key beliefs (for example, a belief that exercise might be dangerous).

Recommendations for overcoming intrinsic barriers

Change perceptions of what it means to be physically active

- Everyday and moderate physical activity is beneficial.
- Small changes in behaviour can make a difference.
- Examine cultural beliefs and values.

Provide education, advice and information

- How to get started.
- How to find out what is available locally.
- How to exercise safely.

Provide reassurance

- Concerning overexertion and injury.
- Following illness and the advance of frailty.
- It's never too late to start.

Enhance self-efficacy

Provide opportunities to try out new activities and behaviour.

Provide information and opportunities around life events

- Provide guidance at the time of retirement from work via pre-retirement programmes and medical professionals.
- Provide guidance at the onset of illness or disease via physiotherapy or rehabilitation programmes.

Emphasise the non-health benefits

- Highlight the social benefits of physical activity.
- Stress personal goals – for example maintaining mobility, playing with grandchildren.

Provide support

- Maintain contact.
- Use peer mentoring and buddy systems.
- Use family and carer support.[3]

Recommendations for overcoming extrinsic barriers

Recommendations that would help with the development of 'activity-friendly environments' for older people are discussed below.

Physical environment

- Increase the number and breadth of physical activity classes and facilities for older people.
- Improve the physical environment to facilitate more walking and cycling.
- Improve transport options, especially in areas where this is a problem.
- Improve the safety of neighbourhoods where fear of crime is an issue.

Social and cultural environments

- Provide community events that promote physical activity for seniors.
- Enhance public education to change norms, values and beliefs about the value of physical activity for people over the age of 50.
- Establish walking groups and buddy systems to provide support for others.

Organisations and institutions

- Encourage GPs and other providers to assess physical activity levels and recommend increased physical activity to all their older patients.
- Provide GPs and other health-care providers with appropriate materials to help them assess and counsel patients over the age of 50 about physical activity.
- Raise awareness among professionals, including managers of older people's services (e.g. residential and care settings), and leisure and recreation providers.
- Develop collaboration between local businesses to create walking maps or sponsor benches along walking routes.

Media and communications

- Provide information and materials on physical activity in languages and formats designed to reach all of the segments of older population
- Identify the best channels for communicating this information to lower income and minority groups in the community.
- Provide information on opportunities for exercise in the community that are appropriate for adults aged 50 and older.
- Design specific informational cues for public places, e.g. to use the stairs.

Positive images of older people

Redress the balance of media images and promote positive role models by, for example:

- using positive non-stereotypical images of older people
- using physically active role models from within the target group – 'people like us'
- using appropriate 'activity ambassadors'.

The best source of information

Older people are a heterogeneous group and no single approach will guarantee success.

The best sources of information on the barriers faced by older people are older people themselves. Consulting with and talking to individuals and groups of older people about their own beliefs and attitudes and the specific barriers that they face will help in the planning of programmes. Older people will also be able to suggest solutions for overcoming these barriers.

1 Dishman RK. *Advances in Exercise Adherence.* Champaign, IL: Human Kinetics; 1994.

2 Hunt P, Hillsdon M. *Changing Eating and Exercise Behaviour: A Handbook for Professionals.* Oxford: Blackwell Science; 1996

3 Finch H. *Physical Activity 'At Our Age'. Qualitative Research Among People Over the Age of 50.* London: Health Education Authority; 1997.

4 Stewart AL. Community based physical activity programs for adults aged 50 and older. *Journal of Aging and Physical Activity* 2000; 9: S71–S91.

Working paper 3

Physical activity and black and minority ethnic older people

Introduction

This document looks at the participation of older people from black and minority ethnic groups in physical activity. It sets out the legislation and policy that impact on their access to statutory and informal programmes. It presents data on the size, structure and location of black and minority ethnic groups in Scotland and comments on the primary health issues and levels of participation for these groups. The evidence is drawn from a review of census and other demographic data on ethnicity and faith; a scan of policy, guidance and legislation; a literature review of relevant research data; and an analysis of current policy and practice drawn from NHS and local authority publications.

The final section of the paper makes recommendations for best practice in the planning and delivery of physical activity programmes specifically aimed at black and minority ethnic older people.

To whom are we referring?

For the purposes of this paper the authors have adopted Health Scotland's terminology as set out in Health Scotland's Race Equality Scheme.[1]

Minority ethnic: '… refers to groups who are in the minority. In Scotland, the term minority ethnic could include people from English, Irish, Polish and Italian communities as well as groups covered under the term "black/minority ethnic". The term would also include refugees, asylum seekers and (Scottish) gypsy travellers.'

Black and minority ethnic (BME): '… refers to communities whose origins lie mainly in South Asia (e.g. India, Pakistan), Africa, the Caribbean (originally Africa), and China. It can be used to mean groups who would not define themselves as "white" (the term "black" may also be used in this case).'

Cultural competence: '… is having the right policies, the knowledge and the skills to meet the needs and practices of people from different cultural backgrounds. Culture is often taken to include aspects such as lifestyle, dress, diet, hygiene, language, including art and music, and spiritual needs'.

Older people: refers to the population aged 55 and upwards.

Physical activity: '… is a broad term to describe movement of the body that uses energy. It can be as simple as walking.'[2]

Sport: 'All forms of physical activity which, through casual or organised participation, aim at expressing or improving physical fitness and well-being, forming social relationships or obtaining results in competition at all levels' (Council of Europe European Sports Charter 1993).

The size, structure and location of black and minority ethnic populations in Scotland

The primary source for data on Scotland's differing black and minority ethnic and faith communities is the 2001 census. The census divides ethnic origin into 14 different categories based on a combination of colour and (perceived) national origin. This information is limited in that it does not cover minority ethnic groups such as Polish and Italian communities. Further data in the census provide information about country of birth, although this is less robust because country of birth does not necessarily indicate issues of ethnicity (for example white UK nationals born in India during the period of British rule). Additionally, the census disaggregates some data by religion, although this has to be treated with some caution because of the high non-disclosure rate for this particular question. These data are, however, useful as they are the only data available on Scotland's Buddhist, Hindu, Jewish, Muslim and Sikh communities. The ethnic data in the census are often collapsed into five primary categories (see Table 17 for example) for convenience and statistical purposes, although this tends to mask distinctions between the experiences of different communities. It is important to remember that ethnicity is only one factor that influences life course events and that black and minority ethnic communities are not in themselves homogeneous and factors such as age, gender and disability have equal relevance.

The two primary analyses of ethnic data in the 2001 census are drawn from the Scottish Executive publication *An Analysis of Ethnicity in the 2001 Census*[3] and the Commission for Racial Equality's *Analysis of Ethnicity in the 2001 Census* (CRE; unpublished 2003).

This information is usually presented at health board or local authority level although it is available at ward level, enabling a more sophisticated and targeted analysis of specific areas (for examples of good practice in this area please refer to the Scottish Public Health Observatory; www.scotpho.org.uk).

Population figures

Scotland's total black and minority ethnic community as recorded in the 2001 census was 101,677 or 2.01% of the total Scottish population (Table 11).[4]

The largest visible black and minority ethnic communities were Pakistani, Chinese and Indian in that order. Over 55% of black and minority ethnic communities described themselves as being Asian (Indian, Pakistani, Bangladeshi or south Asian). No data were collected on Scottish gypsy travellers although, in 2001, the Scottish Executive Development Department returns suggested that there were 'around 500 traveller households (2000 people) on sites or in encampments across Scotland. Some travellers are known to have settled more or less permanently in houses and there are no reliable figures for the number of settled travellers.'[5]

Table 11 ***Scotland's black and minority population as recorded in the 2001 census.***
From: the Office of the Chief Statistician, February 2004.

	Percentage of total population	Percentage of minority	Size of population
White Scottish	88.09	NA	7,459,071
Other white British	7.38	NA	373,685
White Irish	0.98	NA	49,428
Any other white background	1.54	NA	78,150
Indian	0.30	14.79	15,037
Pakistani	0.63	31.27	31,793
Bangladeshi	0.04	1.95	1981
Chinese	0.32	16.04	16,310
Other south Asian	0.12	6.09	6,196
Caribbean	0.04	1.75	1,778
African	0.10	5.03	5,118
Black Scottish or any other black background	0.02	1.11	1,129
Any mixed background	0.25	12.55	12,764
Any other background	0.19	9.41	9,571
All populations	100.00	NA	5,062,011

NA = not applicable.

The count is hotly disputed by many gypsies/travellers and others who suggest that the true figure is nearer to 10,000. Approximately 8000 people in Scotland listed their country of birth as being in Eastern Europe, although this too has altered significantly in recent months. This is largely because of the recent intake of Eastern European countries into the European Union.

Age structure of Scotland's minority ethnic population

In stark contrast to the white majority population, Scotland's black and minority ethnic population shows a significantly younger age structure with 56.1% under the age of 30.[6] This compares with 36.6% of the white community. These percentages do not differ dramatically from those recorded in the 1991 census.

Reasons given in the 2001 census for this bias include the higher birth rates within black and minority ethnic communities, particularly the south-Asian community, and migration patterns, as migrants tend to be the younger and more economically active members of the population. The 2001 census figures also demonstrate that the size of age cohorts declines as age increases within black and minority ethnic communities. The number of black and minority ethnic individuals aged 50+ is recorded as 12,693 or 12.5% of Scotland's black and minority ethnic population. Of these, 6488 or 6.4% of the total black and minority ethnic population are aged 60+. These figures indicate that Scotland will experience significant growth in its 60+ black and minority ethnic population within the next decade.

The Pakistani and other south-Asian communities recorded the highest level of those aged 50+ with 36% (4570). This was followed by the 'other', Indian and Chinese communities with 26.2% (3335), 19.2 % (2444) and 18.4% (2344) respectively.

In total, 48.3% of the total female black and minority ethnic population was aged 50+ compared with 55.2% of the white community.

For those aged 60+, the Pakistani and other south-Asian ethnic groups again recorded the highest level at 38% (2477), followed by the 'other', Indian and Chinese ethnic groups at 24.5% (1593), 19.1% (1244) and 18% (1174) respectively.

At a geographical level, Glasgow City recorded the highest number of minority ethnic residents aged 60+ at 2056 followed by the City of Edinburgh (976), Dundee City (309), East Dunbartonshire (300) and East Renfrewshire (239) (Table 12). In percentage terms, the order is reversed to some extent because of the total size of the black and minority ethnic populations within these local

authority areas and the relative size of the 60+ populations. Although Glasgow City stills records the highest percentage at 1.74% this is followed by East Dunbartonshire (1.33%), East Renfrewshire (1.29%), the City of Edinburgh (1.10%) and Dundee City (0.92%).[7] No data on the age structure of Scottish gypsy traveller communities exist.

Table 12 ***The 60+ age group by local authority area.***

Local authority area	Size of white population	White population (%)	Size of BME population	BME population (%)
All areas	1,060,145	99.39	6488	0.61
Aberdeen City	41,899	99.48	217	0.52
Aberdeenshire	43,400	99.81	217	0.19
Angus	25,555	99.73	68	0.27
Argyll & Bute	22,407	99.70	68	0.30
Clackmannanshire	9,359	99.53	44	0.47
Dumfries & Galloway	37,357	99.78	82	0.22
Dundee City	33,128	99.08	309	0.92
East Ayrshire	25,799	99.74	68	0.26
East Dunbartonshire	22,492	99.68	300	1.33
East Lothian	20,231	99.77	46	0.23
East Renfrewshire	18,332	98.71	239	1.29
Edinburgh	8,994	98.90	976	1.10
Eilean Star	6,891	99.75	17	0.25
Falkirk	30,069	99.70	91	0.30
Fife	74,432	99.62	282	0.38
Glasgow City	115,934	98.26	2056	1.74
Highland	46,339	99.65	163	0.35
Inverclyde	18,408	99.58	78	0.42
Midlothian	16,260	99.61	63	0.39

Moray	18,621	99.75	47	0.25
North Ayrshire	29,313	99.70	88	0.30
North Lanarkshire	2692	99.50	305	0.50
Orkney	4,370	99.79	9	0.21
Perth & Kinross	32,459	99.76	78	0.24
Renfrewshire	35,611	99.64	130	0.36
Scottish Borders	26,313	99.81	49	0.19
Shetland Islands	4,134	99.90	4	0.10
South Ayrshire	27,880	99.79	58	0.21
South Lanarkshire	61,667	99.63	230	0.37
Stirling	17,930	99.63	67	0.37
West Dunbartonshire	19,297	99.71	57	0.29
West Lothian	25,664	99.55	116	0.45

Location of Scotland's black and minority ethnic communities

Although little work has been done to explain patterns of migration it is known that much black and minority ethnic migration to Scotland is secondary migration from England, rather than primary, i.e. from the country of origin. In common with England, settlement is highest in urban areas with the four major cities – where most economic opportunities exist – accounting for 60% of the total population (Table 13). Conversely, the lowest areas of settlement correspond to areas at the periphery of Scotland – the Highlands, Islands and Borders – where there are fewer economic opportunities. However, anomalies do exist and the Western Isles have had a small but thriving Pakistani community for several generations, although this is now declining.

Over time, black and minority ethnic communities have spread from the cities into more rural areas of Scotland, initially at least to take advantage of business opportunities, to the extent that every local authority area in Scotland has a black and minority ethnic presence. Small-area data from the 2001 census reveal that only 15 towns with more than 500 residents recorded no minority ethnic residents.[8] The concentration of Pakistani and Chinese communities involved in retail or wholesale activities in these areas suggests such a 'pull' factor. Indian and

Chinese communities tend to be the first to settle, with Pakistani and Bangladeshi communities the last, seeming to concentrate in inner-city areas (Table 14).

Table 13 ***Ethnic population by council area.***

Council area	Council area population	White population	White population (%)	Ethnic minority population	Ethnic minority population (%)
Aberdeen City	212,125	205,973	97.10	6152	2.90.71
Aberdeenshire	226,871	225,260	99.29	1611	0.79
Angus	108,400	107,544	99.21	856	0.84
Argyll & Bute	91,306	90,585	99.21	721	0.65
Clackmannanshire	48,077	47,673	99.16	404	0.84
Dumfries & Galloway	147,765	146,805	99.35	960	0.65
Dundee City	145,663	140,332	96.34	5,331	3.66
East Ayrshire	120,235	119,417	99.32	818	0.68
East Dunbartonshire	108,243	104,898	96.91	3345	3.09
East Lothian	90,088	89,439	99.28	649	0.72
East Renfrewshire	89,311	85,873	96.15	3,438	3.85
Edinburgh	448,624	430,365	95.93	18,259	4.07
Eilean Star	26,502	26,332	99.36	170	0.64
Falkirk	145,191	143,696	98.97	1,495	1.03
Fife	349,429	344,991	98.73	4,438	1.27
Glasgow City	577,869	546,317	94.54	31,552	5.46
Highlands	208,914	207,243	99.20	1,671	0.80
Inverclyde	84,203	83,454	99.11	749	0.89
Midlothian	80,941	80,204	99.09	737	0.91
Moray	86,940	86,184	99.13	756	0.87
North Ayrshire	135,817	134,893	99.32	924	0.68
North Lanarkshire	321,067	317,022	98.74	4,045	1.26
Orkney	19,245	19,160	99.56	85	0.44
Perth & Kinross	134,949	133,640	99.03	1,309	0.97
Renfrewshire	172,867	170,741	98.77	2,126	1.23
Scottish Borders	106,764	106,166	99.44	598	0.25
Shetland	21,988	21,755	98.94	233	1.06
South Ayrshire	112,097	111,335	99.32	762	0.68
South Lanarkshire	302,216	298,831	98.88	3385	1.12
Stirling	86,212	84,927	98.51	1283	1.49

table continues overleaf

West Dunbartonshire	93,378	92,715	99.29	663	0.71
West Lothian	158,714	156,603	98.67	2,111	1.33

Adapted from: Table KS06.

Table 14 ***Ethnicity by health board areas.*** From: 2001 census.

Health board	Total Popluation	White	Indian	Pakistani & other south Asian	Chinese	Other	Ethnic minority (%)
Argyll & Clyde	420,491	416,328	775	1,040	801	1,528	0.99
Ayrshire & Arran	368,149	365,646	489	459	670	891	0.68
Borders	106,764	106,166	73	106	103	307	0.56
Dumfries & Galloway	147,765	146,805	118	174	244	433	0.6
Fife	349,429	344,991	514	1,470	750	169	1.27
Forth Valley	279,480	276,322	344	1,286	455	2	1.13
Grampian	525,936	517,363	1,074	1,586	1,627	1,095	1.63
Greater Glasgow	867,150	827,781	6,564	20,676	4,912	4,257	4.54
Highland	208,914	207,243	165	388	271	7,166	0.80
Lanarkshire	552,819	546,240	911	2,756	1,202	847	1.19
Lothian	778,367	756,573	2,713	7,094	3,974	8,002	2.80
Orkney	19,245	19,160	17	7	17	45	0.44
Shetland	21,988	21,755	19	59	27	127	1.06
Tayside	389,012	381,543	1,244	2,816	1,243	2,192	1.92
Western Isles	26,502	26,332	17	53	14	88	0.64

Faith communities

Data published by the Scottish Executive[9] on the demography of religion in Scotland are helpful in that they both reinforce key findings of the ethnicity data and also expand on it. Of particular interest are the data on Jewish and Sikh communities, who are otherwise invisible in the ethnicity data. The data on the size of minority faith communities are presented in Table 15.

Table 15 ***Minority faiths in the 2001 census.***

Faith	Size of Community	Predominant ethnicity
Buddhist	6,800	White
Hindu	5,600	Indian
Jewish	6,400	White
Muslim	42,600	Pakistani
Sikh	6,600	Indian
Other religion	27,000	White
No religion	1,394,500	White

Analysis of this information reveals that:

- 67% of Muslims are Pakistani.
- over 80% of both Sikhs and Hindus are Indian.
- Buddhists are the most ethnically diverse religion with 52% being white, 28% being Chinese and a further 21% coming from a range of ethnicities.
- 63% of Chinese people recorded 'no faith' in the census.

An examination of population data on Sikhs and Jewish people in particular is included in the section on research.

Racism and its impact on black and minority ethnic communities

Racism – 'prejudice based on belief in (the) superiority of (a) particular race'[10] – is a powerful force that limits the lives of many of Scotland's black and minority ethnic communities. Hard evidence of the extent of racism is hard to gauge, although the socioeconomic statistics presented below suggest that people's life experiences and circumstances are to some extent determined by their ethnicity. For example, it is hard to explain why Scotland's most highly educated community, the African community, also has the highest proportionate unemployment rate, except to suggest that racism is distorting the labour market.

Most starkly, the steady rise of racial incidents being reported to the police in Scotland – from 2705 in 2000 to 3787 in 2004 – suggests both a growing problem and a growing confidence in reporting.[11] However, a recent report from the University of Strathclyde into policing race crime in Glasgow estimates that only one in five racial incidents are ever reported to the police – if this is a national trend then there will be on average 70 racial incidents per day across Scotland.[12] There have been three 'official' racist murders in Scotland in the last 10 years. Approximately 70% of racial incidents concern verbal racist abuse. Incidents of assault, and especially murder, recorded by the police are mercifully rare. However, the impact of racism has serious consequences for its victims, many of whom report stress, fear, avoidance, anxiety and an overall decrease in mental well-being – the fear of racism is a lived one for many of the subjects of this study, which limits their opportunities. Unfortunately, data on the age of victims of racial incidents are not collated or reported.

Socioeconomic patterns of Scotland's black and minority ethnic communities

Taken together, the two Scottish Executive papers on the census and the CRE report contain a wealth of information and data on the socioeconomic position of Scotland's black and minority ethnic and faith communities. Although there is insufficient space in this report for a full discussion of this data, the following broad patterns are evident.[13]

Unemployment amongst minority ethnic groups is roughly double that of white populations, although unemployment is particularly concentrated in the African, Pakistani, Bangladeshi and black Scottish communities. Unsurprisingly, Muslims – who are disproportionately Pakistani or Bangladeshi – have an unemployment rate nearly double that of the Scottish average. Unemployment amongst Chinese and Indian communities is broadly similar to that of white populations, with the exception of Sikhs who have a slightly higher unemployment rate than Hindus.

Tenure patterns have stabilised since the 1991 census and the percentage of the total black and minority ethnic population either owning or purchasing their own house is roughly similar to that of the white Scottish population; the exception is black Afro-Caribbean, black African and black Scottish groups who are almost half as likely to be involved in house purchase. Of those renting, all minority ethnic groups are disproportionately reliant on private rentals and are, on average, 30% less likely to live in the social rented sector than white Scottish groups.

Educational attainment varies significantly across black and minority ethnic communities. African people make up the most highly educated group in Scotland with over 50% holding at least one degree. Pakistani and Bangladeshi people are the least likely to hold higher education qualifications and most likely to have no formal qualifications. Educational attainment is also linked to age, with progressively fewer members of all communities holding (recognised) higher qualifications as age increases.

Scotland's largest black and minority ethnic groups show signs of having highly segregated employment patterns with over 55% of Chinese and Bangladeshi men working in catering trades and 48% of Pakistani people working in wholesale retail environments.

Self-reported health also varies across black and minority ethnic communities with Chinese communities most likely to report being in good health (96%) compared with only 86% of white Irish people.

There is a slight imbalance in reported gender between black and minority ethnic communities and white communities with black and minority ethnic communities having slightly higher numbers of men than women, particularly as age increases. It is suggested that this relates to patterns of migration into Scotland in the 1960s.

Country of birth varies by ethnicity with almost 50% of Pakistani people and 33% of Bangladeshi and Indian people being born in Scotland compared with 29% of Chinese people and 17% of African people.

Data issues

Ethnic and faith data in the 2001 census should be treated with some caution and used as a guide rather than an authoritative statement of fact. The data are problematic in that:

- They are a snapshot that does not reflect Scotland's dynamic population trends (for example there are estimated to be 10,000 new asylum seekers in Glasgow and a further 20,000 Polish migrants who have settled in Edinburgh in the past year)[14].
- Some community data conflict with anecdotal information (the Bangladeshi population, in particular, seems to be under-represented).
- The categories in themselves are unpopular amongst particular ethnic groups, which may lead to under-reporting.

Legislative and policy considerations

Legislative drivers

Race

The primary legislative drivers for racial equality are the Race Relations Act 1976 (as amended) (RRA) and the Scotland Act (2000).

The RRA makes discrimination on the grounds of race, colour, nationality, ethnic or national origins in employment, housing, education, health and the provision of goods and services unlawful. The RRA defined two types of racial discrimination: direct and indirect. Direct racial discrimination is defined as treating a person less favourably on racial grounds – for example in refusing to

allow an Asian person to view a house for sale (Yousef *v*. Robb Agency 2001) or an employer refusing repeatedly to promote a black nurse in circumstances in which their white colleagues are being promoted (Bharath *v*. Fife Health Board 1994). Indirect racial discrimination involves the application of rules governing access to employment or services, which make it harder for one racial group to succeed and which cannot be justified on non-racial grounds. Examples of indirect discrimination could be the provision of support services to older people in day care which are dependent on a person being able to speak English – many black and minority ethnic older people have little or no fluency in English.

In recognition of the persistence of racial discrimination and, in particular, in response to the McPherson Report into the murder of Stephen Lawrence the Government amended the RRA 1976 in 2000 to place a positive duty on statutory bodies to:

- eliminate racial discrimination and harassment
- promote equality of opportunity and good relations between persons of different racial groups.

This positive duty applies to some 300 public authorities in Scotland (such as police forces, NHS boards, local authorities, Sport Scotland) and a further 1400 community councils. A further specific duty requires 265 public authorities – including NHS boards and local authorities – to publish a race equality scheme (RES) every 3 years that sets out which of their functions and policies have relevance to race equality and their plans for:

- assessing and consulting on the likely impact of these policies
- establishing monitoring regimes to track black and minority ethnic access
- publishing the results of assessments, consultations and monitoring
- ensuring that people have access to information and services that the authority produces
- training of staff in their responsibilities under the Act.

Further orders apply to the monitoring of employment functions and to educational establishments.

The CRE in Scotland has recently criticised public authorities and, in particular, the Scottish Executive for their failure to implement these duties properly, stressing that the production of plans is simply the first stage in dismantling discrimination and not an end in itself. In February 2006 the CRE in Scotland stated that '… too many authorities think that because they have a competent scheme or policy on paper they've done enough. It's a bit like investing in a home gym – you can set it up, but if you don't use it, its never going to deliver the outcomes you desire.'[15]

In setting strategies around older people and physical activity, the Scottish Executive, local authorities and health boards are required by law to consider their potential impact on black and minority ethnic communities and take steps to remedy any disadvantage that they may cause, including lack of access. Further access to such provision needs to be consulted upon with black and minority ethnic groups and then ethnically monitored to assess the extent to which barriers have been removed.

Similar duties to promote disability and gender equality will come into force in 2006 and 2007.

The Scotland Act (1998) gives the Scottish Parliament power to encourage equal opportunities, particularly the observing of equal opportunity requirements. It also has the power to impose duties on Scottish public authorities and cross-border public bodies operating in Scotland. Again, this requires Parliament to ensure that legislation and its implementation are non-discriminatory.

Policy drivers

As well as having their own RES, the responsibilities of public authorities towards race equality and black and minority ethnic communities are detailed in several key policy objectives:

Best Value – The final report of the *Best Value Task Force – Best Value in Local Government: Long-Term Arrangements* – in 1999 stated that local authorities should incorporate equality issues into their Best Value frameworks. Guidance issued by COSLA (1999)[16] highlighted the need for reviews to address issues of fair access, ensure ongoing consultation with minority groups and develop improvement plans to identify areas for improved performance against equality objectives amongst others.

Fair For All – The Fair For All (FFA) programme set out in the HDL (2002)[17] requires all health boards to take steps to become culturally competent organisations. This means that their policies, procedures and services not only reflect their legal duties under the RRA 1976 but also meet specific deliverables as part of their core objectives. In particular, Fair For All requires that all boards take action to ensure:

- leadership on race equality – the development of statements of intent and action plans
- the gathering of intelligence – a demographic survey of their local black and minority ethnic populations, a needs assessments and a commitment to research further their black and minority ethnic communities

- access and service delivery – including work on access audits, personal and spiritual care, food, translation and interpretation, advocacy and gender issues
- development of human resources – the consolidation of equal opportunities policies and improvement policies
- community development – the development of collaborative mechanisms and capacity building amongst black and minority ethnic communities.

Physical activity

Let's Make Scotland More Active – a strategy for physical activity[18]

The strategy for physical activity highlights the importance of physical activity as a means of promoting positive psychological, physical and psychosocial health and reducing the likelihood of disease and premature death. It stresses the importance of physical activity as a means of reducing high levels of cardiovascular disease, cancer, obesity and mental ill health such as depression and anxiety. Both cardiovascular disease and obesity disproportionately impact on Scotland's larger black and minority ethnic communities (see below).

Physical activity is a broad term used to describe movement of the body that uses energy. It can be as simple as walking. It encompasses a range of activities such as exercise, sport, play, dance and active living such as walking, housework and gardening.

Although the strategy discuses the impact of physical activity, or lack of it, by gender, age and socioeconomic status, it does not discuss older age or ethnicity as a factor in determining health improvement other than by stating that 'the lack of research (into these groups) makes it difficult to comment on differences in activity levels (although) research from elsewhere suggests that they are likely to be less active than the general population.' Research discussed elsewhere in the strategy does suggest that older Scottish adults experience barriers to access related to disability, the climate and time pressures – all of which were explored in the black and minority ethnic focus groups. Overall, the strategy recommends that:

- Adults in life should have the opportunities and should be supported and encouraged to remain active in the community for as long as they choose.
- Frail older people living independently should have self-help resources and staff support to enable them to be physically active within their homes.
- People living in residential care should have opportunities for physical activity in line with the Home Care Standards 2001.

Sport 21 – the national strategy for sport in Scotland[19]

As we have seen above, sport is one contributor to Scotland's physical activity strategy. The vision on which the national strategy for sport is based includes the wide availability of sport for all as a key objective. The strategy sets out a range of key targets for attainment. The targets concentrate on younger people and the promotion of excellence; however, target six '… is aimed more at the elderly … (to) acknowledge the beneficial health effects of those more elderly becoming active'. Attainment of the target – to encourage 43% of people aged 45–64 to take part in sport at least once a week – will involve local authorities and national governing bodies of sports ensuring access for older people to sports facilities; their participation in targeted programmes; the development of leaders; linkages to health programmes; support from employers; and, lastly, a 'commitment to diversity'. The strategy is currently under review, including elements of its contribution to the Scottish Executive's RES.

An analysis of race equality schemes for reference to black and minority ethnic older people and physical activity

Before conducting fieldwork the authors studied key public authority documents to assess the extent to which leisure and health improvement programmes specifically address the physical activity needs of older black and minority ethnic people. Many RESs are general documents and rely on operational plans for the detailed application of policy. However, if an authority believes that either issues of age or issues of physical activity are relevant to race equality (e.g. is there evidence of discrimination or a lack of promotional work) the CRE recommends that such issues are assessed in a function and policy analysis. Undertaking a full review of all RESs and their supporting documentation was not possible, although four local authority RESs in the focus group areas and the Scottish Executive RES were examined.

Of the four RESs examined only one made explicit reference to physical activity and none referred to older black and minority ethnic people. Dundee City Council have broken down elements of leisure and recreation provision into areas in which it felt that problems of access may exist. The analysis focused on programmed activities such as swimming classes and aqua aerobics and the primary barrier to access was viewed as being linguistic – either in terms of information about the service or the problems of tutoring someone who did not speak English. It is, however, recognised that service plans may contain details about activities which are not presented in the RES.

In interviews with local authority and Sport Scotland staff it was clear that, for all authorities, the issue of black and minority ethnic community access to physical activity services is at an early stage and that linkages have not been formally made with services for older people; the overwhelming focus is on younger people from black and minority ethnic communities. Most could evidence some work around consultation or research but there was little evidence of formal programmes being developed in response. Interestingly, one respondent suggested that responsibility for race issues tended to be located with another department (Communities) and that it would take the lead in consultation and negotiating delivery. Only one authority was ethnically monitoring leisure services – commencing in 2006 – so no authority had any hard data on which to base their current assessments of access, although all felt that it was lower than it could be. Most described one-off initiatives such as taster days or outreach on single issues, although the relative success of these events was mixed. The most frequently cited activity was swimming sessions for Muslim women in single-sex environments. Most of the examples cited tended to involve provision for Pakistani or Muslim communities.

None of the respondents signalled any reluctance to the idea of making services more accessible to black and minority ethnic communities – quite the reverse. However, the issue appeared to be being approached in an unstructured manner and was often described as being an emerging issue, something to be worked on in the future rather than an active priority for this year. There was a sense that workers felt deskilled approaching a new client group and concerned lest they should cause offence because of a lack of knowledge of different cultures.

The health of black and minority ethnic communities in Scotland

This section summarises the key findings from research on health conditions for which physical activity is known to be beneficial and from which black and minority ethnic communities suffer disproportionately. The key challenge in presenting this information for Scottish audiences is the absence of research data that relate to the epidemiology of Scotland's black and minority ethnic communities. A major literature review of known health data that refer to Scotland's black and minority ethnic communities was commissioned by NHS Lothian Health in 2000;[20] it looked at 14 health frameworks or indicators, including physical activity, poverty, access to transport, smoking, alcohol consumption and mental health. At that time much of the data collected was either anecdotal or drawn from small-scale community surveys, as no data were available from the NHS.

The position today is only slightly improved – much of the impetus for this improvement has come from the Fair For All initiative, which has generated greater and more statistically reliable data. However, there are still many gaps to be filled and, where necessary, reference has been made to data generated in England and Wales as being the most reliable and up to date available. This approach is supported by the Scottish Public Health Observatory who state that, when discussing mortality, 'in the absence of Scottish data … estimates from England have been used as an approximate guide to likely causes and patterns in Scotland.'[21]

The 2001 census presents data on limiting long-term illness disaggregated by ethnic group and age (Table 16). Although the sample sizes are small, and the self-assessing nature of the question open to individual interpretation, it appears that older black and minority ethnic respondents tended to rate their health as being poorer than that of older white people. This is particularly noticeable in the Pakistani and Indian communities where 68% and 63% of those aged 65+, respectively, described themselves as having a long-term limiting illness.[22]

Table 16 ***The prevalence (%) of limiting long-term illness by age and ethnicity.***

Ethnic group	Age group					
	0–15	16–24	25–34	35–59	60–64	65+
White	4.7	6.2	9.5	19.1	39.0	55.0
Indian	3.8	4.6	5.9	17.8	44.3	62.7
Pakistani	5.1	6.6	9.8	28.4	63.6	67.7
Bangladeshi	5.2	7.7	6.2	20.8	32.5	52.4
Other south Asian	4.9	4.9	9.8	19.1	47.0	55.1
Chinese	3.6	2.9	3.4	11.7	38.9	53.5
Afro-Caribbean	5.1	7.0	8.6	15.5	47.2	48.0
African	4.5	5.5	4.8	10.8	47.2	48.0
Black Scottish/ other black	4.8	7.6	12.2	22.8	45.8	56.4
Any mixed background	5.0	6.9	12.0	22.0	47.5	56.2
Other ethnic group	3.8	3.8	3.8	11.2	30.8	50.4

More limited data from the Labour Force Survey (Spring 2005) suggest that, at a Great Britain level, 37% of Asian people, 22% of black people and 30% of 'others' aged 50–64 have a disability compared with 45% of white people. Data on other communities were too unreliable to publish.[23]

Coronary heart disease and stroke

Coronary heart disease has long been recognised as a major health issue for black and minority ethnic communities and, in particular, south-Asian people. Despite this, until recently no primary data were available in Scotland and the NHS has been wholly reliant on studies published in, and relating to, England. The Scottish data that exist[24] confirm the patterns identified in England. The largest and most reliable and recent study – *Health Survey for England 2004: The Health of Ethnic Minority Groups*[25] – reports higher levels of angina (31% as opposed to 9% for the general population) and heart attacks (19% as opposed to 10%) amongst Pakistani men. Bangladeshi women and Afro-Caribbean men were twice as likely to report strokes as the general population. The report notes that this 'suggests a higher occurrence of angina and heart attacks in Pakistani and Indian adults aged 55 and over'.

Diabetes

The primary data available on diabetes were published in the 2004 Health Survey for England, which recorded that black Caribbean men and women were most likely to experience diabetes (10% and 8%, respectively, as opposed to 4% and 3%, respectively, of the general population) and that Indian, Pakistani and Bangladeshi men and women also experienced diabetes with a prevalence that is at least twice the national average.

A recent survey (2004)[26] from the National Resource Centre for Ethnic Minority Health of black and minority ethnic patients on the Glasgow Diabetes Register suggested that 'the risk of being diagnosed with type 2 diabetes was eight, four, and three times higher in the Pakistani, Indian and Chinese ethnic groups, respectively, compared with the majority white population' (see Table 17).

Table 17 ***Diabetes prevalence (%) by ethnic group and age (Glasgow).***

Ethnic group	Age group	
	50-69	70+
White	3.5	6.1
Pakistani	22.7	40.0
Indian	13.3	14.0
Chinese	10.7	21.6
Others	12.9	17.4

Psychosocial health

Psychosocial health is one of the areas where more research has been carried out, both in England and Scotland. However, whereas in Scotland almost all data have been gathered in community-based surveys, in England this is backed by major studies such as the National Health Survey. The review of community-based literature commissioned by the NHS Lothian Health in 2000 noted that much of the data suggest that high levels of depression, anxiety, social isolation and poverty are significant factors and ones that disproportionately affect south-Asian and older groups.27 Data from the 2001 census and partial data collated from hospital admissions in Edinburgh suggest a lower than would be expected admission/sectioning rate among black and ethnic minority communities.[28] Anecdotal evidence suggests that black and minority ethnic communities tend to approach psychiatric services later and more often in crisis when caring situations have broken down.

Falls and accidents

No data on falls and accidents, disaggregated by age or ethnic origin, were available either in Scotland or England.

Physical activity

Assessing the available literature on physical activity levels amongst minority ethnic communities in Scotland in 2000, Lothian Health commented that 'there is very little, if any, Scottish research on the nature and extent of physical activities undertaken by minority ethnic communities.'[29]

The most comprehensive data were, again, presented in the *Health Survey for England 2004: The Health of Ethnic Minority Groups*, including data on a variety of physical activity contexts disaggregated by age and ethnic origin.[30]

Overall the survey found that whereas African and Afro-Caribbean people tended to have activity rates similar to those of their white counterparts, Pakistani and Bangladeshi people, in particular, had very sedentary lifestyles. Table 18 illustrates this by identifying the proportion of those aged 55+ who recorded low levels of physical activity by ethnic group – low meaning 'participation in less than one 30-minute moderate or vigorous physical activity session a week'.

Table 18 ***Percentage of those aged 55+ having low physical activity levels by ethnic group.***

	Black Caribbean	Black African	Indian	Pakistani	Bangladeshi	Chinese	General population
Men	66	(45)	68	88	(78)	50	51
Women	57	(69)	79	74	92	67	57

Breaking these figures down further, the Health Survey reveals patterns of inactivity that vary greatly between different ethnic groups (Table 19). However, the prevailing picture is that of a predominantly sedentary south-Asian community, relatively active Chinese and African communities and an Afro-Caribbean experience that falls between these groups.

Table 19 ***Percentage of those aged 55+ taking part in specific activities once per week by ethnic group and gender.***

Activity	Ethnic group													
	Black Caribbean		Black African		Indian		Pakistani		Bangladeshi		Chinese		General population	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Heavy housework	17	19	28	16	12	13	2	19	10	11	23	19	17	24
Heavy DIY/ gardening	6	1	4	0	9	0	3	1	1	0	9	4	16	4
Walking	8	9	23	11	10	5	5	2	12	0	19	2	17	14
Sports/ exercise	9	10	11	2	7	3	1	2	2	1	23	11	13	12
Any physical activity	34	43	55	31	32	21	12	26	22	8	50	33	49	43

KEY
M = male
F = female

Recommendations

The previous section of this document has illustrated the case for promoting health and physical activity to black and minority ethnic groups. It is the intention of the remainder of this document to identify a forward direction and to point out potential obstacles on this road.

Scottish research

In 2006 the Scottish Executive carried out qualitative research using focus groups and interviews to explore the perception of physical activity amongst black and minority ethnic groups (unpublished material). The preliminary findings of this research included data on the barriers to physical activity, indicated which activities were favoured by black and minority ethnic groups and offered suggestions for strategic targets. This research provides a helpful contribution to the literature and an impetus to explore this area further, looking more closely at the diverse populations under the black and minority ethnic group umbrella.

The research showed that the perception of physical activity among black and minority ethnic older people supports existing research in other areas detailed in the previous sections. Physical activity was thus a term that encompassed sport or sporting activities such as swimming, tennis, cricket, jogging and physical exercises such as t'ai chi, pilates and aerobics but which also applied to a wide range of activities such as gardening, heavy housework, walking to the shops, looking after grandchildren and walking pets. There was general consensus that any activity that 'got the body moving' should be considered as physical activity.

Participants were aware that physical activity could bring about benefits for health, sociability, access to the local community and as a general good in itself, although there were mixed responses and little accuracy on the suggested recommended guidelines for physical activity. In particular, links between diet and health were poorly understood. Given these common attitudes and perceptions, the next section of this document addresses particular considerations for promoting physical activity with black and minority ethnic groups.

How do we move forward?

This section is intended to flag particular issues that are relevant to black and minority ethnic communities. The reader should also consider the guidance given in Section 2 as a primary starting point.

The flow of information

In order to promote physical activity to older adults in general and older adults from black and minority ethnic groups in particular, communities should take particular care to address the flow of information. Several issues are involved here:

- Local communities need to ensure that they are consulting with older adults and their representatives from local community actions groups to increase awareness of the importance of physical activity, to promote the choices available in the local area, to increase usage of leisure facilities and parks and to provide activities that are popular and culturally sensitive.
- Information on physical activity needs to be more effectively communicated; this means putting activity in the shop window: maximise coverage in radio broadcasts, local newspapers and through direct marketing to the care and residential settings, which all offer important communication networks to older adults from black and minority ethnic groups.
- To complement these two points, black and minority ethnic groups need to ensure that they are widely disseminating consistent messages on physical activity and are actively engaging with councils and leisure facilities. In this respect, existing structures such as faith centres have a vital role. They provide direct access to hard-to-reach and under-represented groups and also may provide venues for physical activity.

Dealing with diversity

The black and minority ethnic population contains a variety of subsets with different needs, preferences and obstacles to participation. Consider the issue of travelling communities, which are often under-represented in local communities. The flow of information between communities and councils and amongst communities is a significant challenge.

Funding

The participants in the Scottish Executive research expressed a clear preference for physical activities to be organised and run by local community organisations. However, concern was expressed about the short-term nature of such activities/programmes because of funding issues and, therefore, consideration should be given to the mainstreaming of such services at the outset. It was felt that the positive health messages and personal motivation engendered by staff in encouraging minority ethnic older people to take part would dissipate because of the stop/start nature of what could be provided in the current funding climate. This, in turn, could make it more problematic to encourage participation as and when more opportunities became available.

Language

Non-existent or poorly developed English language skills were also identified by the Scottish Executive as a major barrier to accessing information on activities in the wider community (forthcoming, 2007). However, in this instance, responsibility was seen to lie with service providers, with participants stating that information should be available in both a range of community languages and in different formats, recognising that many black and minority ethnic older people are not literate in their own language and rely on verbal communication.

Minority ethnic instructors

Additionally, there was a strong preference for instructors from minority ethnic communities to lead those physical activities that required some level of tuition and guidance. Again, it was felt that this would assist in overcoming language and cultural barriers in addition to fostering a greater sense of personal motivation. Although some participants felt that they could 'get by' by copying the movements of those instructors who did not speak their language, this was offset by a fear of injury.

The availability of female minority ethnic instructors was of particular importance to south-Asian women, who required single-sex provision to participate in most forms of physical activity (women-only swimming sessions were singled out as an example of this). Although valuing the limited provision (because of staffing/resource constraints) that was available, frustration was expressed that these sessions were often overcrowded and left them with little flexibility in when and how often they chose to exercise. Simply 'dropping' into their local sports/leisure centre was not an option available to them.

Access and safety

Evidence from the Scottish Executive shows that black and minority ethnic groups are concerned about unfair and racist treatment in leisure facilities. This gives renewed importance to a zero tolerance policy on racist behaviour and the need to encourage cultural change within venues.

Clubs and leisure facilities

Finally, the paucity of up-to-date information on the rates of participation in physical activity by older adults from black and minority ethnic groups presents a challenge for future monitoring and evaluation. However, useful information can be obtained relatively easily. There are opportunities, particularly from a sporting perspective, to record participation rates through organised affiliated clubs and through leisure centres. Sport England data show that the average sports centre attracts only 80% of the visits from black and minority ethnic communities that

would be expected from their proportion in the local community.[31] The worst 25% of centres attract only 40%. Governing bodies can provide impetus by requiring clubs and leisure centres to record the ethnicity of their members as well as other demographic information. It is more difficult to evaluate forms of physical activity such as walking, which is often an informal activity. Care and residential homes must play a vital role in establishing and maintaining activity programmes.

1. NHS Health Scotland – Race Equality Scheme, Appendix G (2004)

2. 'An Analysis of Ethnicity in the 2001 Census' (Scottish Executive 2004)

3. 'Ethnic Data in the 2001 Census' (C Oswald, Commission for Racial Equality unpublished 2003).

4. 'An Analysis of Ethnicity in the 2001 Census' (Scottish Executive 2004)

5. Scottish Parliament Press Release 5 December 2001.

6. "An Analysis of Ethnicity in the 2001 Census' (Scottish Executive 2004)

7. All statistics drawn from "An Analysis of Ethnicity in the 2001 Census' (Scottish Executive 2004)

8. 'Ethnic Data in the 2001 Census' (C Oswald, CRE unpublished 2003).

9. Scottish Executive, Office of the Chief Statistician (2005)

10. Oxford Dictionary (OUP 2001)

11. "Needs Not Numbers" Philomena JF De Lima (Commission for Racial Equality 2001)

12. Commission for Racial Equality web briefing paper (2004) (www.cre.gov.uk)

13. Author ? (University of Strathclyde 2003)

14. All statistics: 'Ethnic Data in the 2001 Census' (C Oswald, Commission for Racial Equality unpublished 2003).

15. Sunday Times 16th April 2006.

16. Herald Society 28th February 2006

17. COSLA

18. Scottish Executive Health Department (NHS HDL 2002/1)

19. "Let's make Scotland more active – a Strategy for Physical Activity" (Scottish Executive 2004)

20. The National Strategy for Sport in Scotland 'Sport 21' (Scottish Executive 2003)

21. "Black & Minority Ethnic Health Frameworks" S Munday & C Oswald (Lothian Health 2000).

22. Scottish Public Health Observatory 2004 http://www.scotpho.org.uk/

23. 'Analysis of Ethnicity in the 2001 Census' (C Oswald, Commission for Racial Equality unpublished 2003).

24. Labour Force Survey, Spring 2005 (Department of Work & Pensions)

25. "Counterintuitive findings on heart failure in South Asians: consider artefacts" R Bhopal, C Fishbacher (British Medical Journal 2003)

26. "Health Survey for England 2004 ; The health of Minority Ethnic Groups – headline tables" Health & Social Care Information Centre, Public Health Statistics (England 2005)

27. "Diabetes in Minority Ethnic Groups in Scotland" National Resource Centre for Ethnic Minority Health/ Scottish Diabetes Group (NHS Health Scotland 2004)

28. S Munday & C Oswald – Black & Minority Ethnic Health Frameworks (Lothian Health 2000).

29. C Oswald Commission for Racial Equality (unpublished 2004)

30. S Munday & C Oswald – Black & Minority Ethnic Health Frameworks (Lothian Health 2000).

31. All statistics: Health Survey for England 2004 ; The health of Minority Ethnic Groups – headline tables" Health & Social Care Information Centre, Public Health Statistics (England 2005)

ACKNOWLEDGEMENTS

We would like to thank the following organisations and local authorities for their support and participation:

- Aberdeen Chinese Association
- Alzheimer Scotland Action of Dementia Polish and Ukrainian Support Service
- Edinburgh Chinese Elderly Support Association
- MECOPP (Minority Ethnic Carers of Older People Project)
- Multi-Cultural Elderly Centre
- Taleem Trust
- Wing Hong
- Aberdeen City Council
- Dundee City Council
- City of Edinburgh Council
- Sport Scotland

Working paper 4

Training for those working with older people

Introduction

This working paper outlines the key issues relating to the planning and provision of training for those working in a variety of settings with older people.
It looks at:

- the range of potential providers (those who will be providing the classes or activity opportunities to older people)
- the needs to be met when providing physical activity for older people and the training implications
- the types of qualifications that are appropriate.

It also includes a checklist of questions that participants can ask about individual courses, and information about the S/NVQ (Scottish National Vocational Qualification) framework and the affiliation of courses with the Fitness Scotland National Register and Register of Exercise Professionals.

Training

The provision of appropriate training for all those involved in leading, teaching and instructing in physical activity programmes is an essential feature of the planning phase of interventions designed for older people. It should therefore be included in any audit undertaken, as described in Section 3 (Evidence-based planning).

Training courses for those delivering physical activity programmes for older people is a relatively recent area of development. When considering individual courses, local co-ordinators will need to think about:

- how appropriate the course content is
- the experience and expertise of the course tutor team
- external validation and continuing education requirements
- assessment procedures and certification
- access to national courses at a local level
- the national reputation and credibility of courses.

They will also need to ensure that the courses meet the necessary quality standards and are meaningful in educational terms.

Who should receive training?

In the past, the provision of physical activity opportunities for older people was largely undertaken by exercise teachers and fitness instructors, people working for medical charities, physiotherapists and occupational therapists. Exercise classes were predominantly based in community settings (led by a fitness or movement teacher), residential and care settings (mainly chair-based movement) or in the hospital and rehabilitation setting.

More recently there have been exciting developments, with a range of providers developing new opportunities for older people. A recent survey by the British Heart Foundation National Centre for Physical Activity and Health indicates that current programmes for older people include:

- exercise programmes designed for older people in a range of residential and care settings (predominantly chair-based exercises, assisted walking, dance and games activities)
- sports-based programmes designed for older people in a range of community settings (e.g. short tennis)
- national and local schemes promoting health-enhancing activities such as dance, walking and swimming
- fitness and health clubs and leisure centre programmes targeting older people
- primary health care exercise referral schemes targeting those people with specific health-related physical activity needs
- specific programmes designed for promoting independence, e.g. intermediate care and rehabilitation programmes
- specific exercise programmes included within hospital-based rehabilitation schemes, e.g. for cardiac, falls, mental health and COPD (chronic obstructive pulmonary disease) patients.

The variety of types of provision has arisen in response to the diversity of interests, health needs and functional capacities found among older people. To meet these needs it is essential to widen training provision to include different levels of training delivery by different groups of people including both professionals and volunteers.

The needs to be met when providing physical activity for older people and the training implications

The developments described above, and the different styles of working, indicate the following needs:

1. Increasing older people's access to physical activity by training the front-line workforce. There is a need to increase access to physical activity for older people by encouraging a greater range of people to become involved in initiating opportunities and in leading, teaching and instructing programmes. These may include volunteers, family carers, health- and social-care workers, physical education teachers, and sports and recreation leaders who in the past may not have considered promoting physical activity with older people.
2. Promoting an inclusive model of physical activity. Physical activity opportunities available to older people should include not only structured exercise classes with the specific purpose of improving health and functional capacity but also activities such as walking, adapted sporting activities, swimming, gardening and dance, where the emphasis is on meeting broader recreational and social needs. Opportunities should also be available for older people with specific conditions such as Parkinson's disease, arthritis and dementia.
3. The importance of evidence-based practice. When physical activity programmes are designed to meet specific needs – for example those for special populations such as frail older people – the principles of adaptation of exercise must be based on current evidence and published guidelines for best practice. Within certain specific types of programming for the older person – for example in falls prevention or cardiac rehabilitation – it is important that interventions are based on strong, established evidence to ensure effectiveness in the achievement of intended outcomes.

What types of qualifications are appropriate?

In making decisions about what types of qualifications and experience are needed to provide enjoyable, safe and effective programmes for older people, it may be helpful to consider the following three questions:

1. Who is the participant expecting to work with?

The type of training and qualification required will depend on:

- whether the participant wants to become involved with older people doing a certain type of activity, e.g. weight training, dance or walking
- whether there is a requirement to meet a specific health need of a group of older people as a result of advice, guidance or a referral by a health professional, e.g. within a primary health care exercise referral scheme or a falls prevention programme

- the health risk factors of the participants, e.g. relatively healthy older people or frail older patients with multiple pathologies
- whether the type of activity requires a particular degree of competence of the leader/teacher, e.g. chair-based leadership skills, seniors weight training, falls prevention advanced instructor skills
- the context and setting within which the activity might take place, e.g. in a day centre, residential setting or hospital, the health risks of the activity in relation to the health risks of the participant and the degree of responsibility of the facilitator.

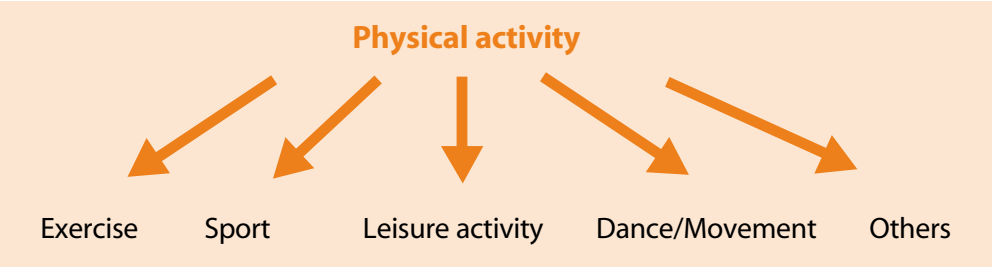
All types of physical activity can be made more enjoyable, safer and more effective through the education of the participants and facilitators, but the training requirements will vary greatly in relation to the intended outcome (the purpose) and the intensity of the activity.

Using the three strands of the Active for Later Life framework – Making Activity Choices, Increasing the Circle of Life, and Moving in the Later Years (see Table 4 on p. 39) – can help to match programmes and appropriate training to the different needs of the older person.

2. What types of activity do older people want to take part in?

The model of physical activity shown in Figure 6 can be used as a means of classifying the nature of activity to be provided. The training section of the Information directory on p. 269 gives information about the training courses related to these different activities.

Diagram 7 ***The sub-categories of physical activity.***



3. What is the purpose or expected outcome of the programme?

For example:

- specific changes in habitual lifestyle behaviour, e.g. regular walking, leading to an improvement in general health and well-being
- an improvement in functional capacity, mobility and independence
- a reduction in falls and accidental injuries
- increased social contact and interaction.

A checklist of key questions to ask when choosing a course is given below.

Choosing a training course: checklist

☐ **Is the course available locally?**	There is no single database of all the courses and qualifications available for those working with older people, although many training providers ensure that their courses are provided nationally. Details of courses and qualifications can be obtained from individual training providers and from the national governing bodies for exercise and sport. See the Training section of the Information directory. For contact details of organisations, see the A to Z of useful organisations
☐ **Has the course been designed using evidence-based practice?**	Few courses and qualifications have been designed using scientific evidence relating to effectiveness. When deciding which course to choose, details of the evidence used should be obtained from the training provider
☐ **Is the course quality assured (through internal and external verification)?**	Ask the training provider to supply details of verification procedures and other details such as the entry level of the course, and details of theoretical and practical assessments
☐ **Is the course aligned to the S/NVQ national framework?**	Ask: • Does the course enable participants to complete a full S/NVQ Level 2? • Does the course enable participants to begin a portfolio of evidence towards a full S/NVQ Level 2 award? For more information on this, see The S/NVQ framework on the next page
☐ **Does the course consider the specific impact of exercise on the older person?**	No minimum criteria have been established for the design of courses relating to older people. The following are common elements of the curricula of courses currently available so you could ask individual training providers if these elements are included in their courses: • how the body works – physiology and anatomy related to ageing • the components of physical activity and exercise, e.g. strength, endurance, flexibility • teaching strategies, organisation and planning • safety considerations including assessment, emergency action planning and cardiopulmonary resuscitation • adaptation of activity and the impact of impairments, disease and pathologies on activity • motivation of older people including readiness to exercise, and intrinsic and extrinsic barriers • theoretical and practical assessment

The S/NVQ framework

Scottish Vocational Qualifications (SVQs) tell you exactly what someone who is competent in an occupation can do. This means that anyone who has an SVQ for their job is competent and has a way to prove it.

SVQs are recognised worldwide. They are the Scottish equivalents of NVQs (National Vocational Qualifications) in England, Wales and Northern Ireland. SVQs are based on standards of competence. These are drawn up by standards-setting bodies on behalf of the industry and tell you exactly what you have to do to prove that you are competent in the occupation the SVQ covers. The SVQ framework was developed to establish a new system of qualifications designed to prove competence in doing a task or job.

The exercise and fitness industry is implementing teaching/instructing qualifications based on national occupational standards. This provides a uniform minimum standard describing the knowledge and skills that all teachers/instructors need to deliver exercise and fitness activities.

The S/NVQ exercise and fitness award

There are various qualifications in the exercise and fitness industry but there is only one award – the S/NVQ. The S/NVQ award is based on national occupational standards. There is currently just one level of award available – S/NVQ Level 2 Coaching, teaching and instructing in an exercise and fitness context – although it will eventually be offered at four levels. Assessment against the national occupational standards enables a teacher/instructor to prove their competency.

This S/NVQ Level 2 award relates to delivering safe and effective exercise sessions to 'apparently healthy' adults. For more information about this Level 2 award and for details of the national occupational standards on which it is based, see www.sqa.org.uk

Current training at S/NVQ Level 2

As the national occupational standards are still new to many training providers, not all courses include full completion of S/NVQ Level 2. Individuals embarking on a career in the exercise and fitness industry should find out if their training programme will lead to a recognised award. Anyone deciding to take a course in exercise and fitness should ask:

- Does the course enable me to complete a full S/NVQ Level 2?
- Does the course enable me to begin a portfolio of evidence towards a full S/NVQ Level 2 award?

Higher level awards – teaching people with particular health and fitness needs

Qualifications are also available to teach health-related exercise/activity and a range of related matters to individuals and groups who have particular health and fitness needs. These are at a higher level than the S/NVQ Level 2 but they are not linked to the S/NVQ framework.

Details of these courses can be found in the training section of the Information directory on p. 269 or from the National Register of Exercise Teachers (tel: 0131 317 7243; email: admin@fitness-scotland.com).

The future implementation of the national occupational standards at Level 3 and the expansion of the National Register to this level will bring about uniformity to the specialist qualifications that already exist including:

- exercise for older people
- exercise for people with disabilities
- exercise referral schemes.

Exercise and fitness coaches, teachers and instructors working at Level 3 are termed 'advanced instructors'.

Definitions

Awarding bodies

Awarding bodies are organisations that have been approved by the Scottish Qualifications Authority (SQA) to offer vocational qualifications (S/NVQs). Awarding bodies accredit candidates with their award, and provide relevant certification through approved centres (see below).The awarding bodies for exercise and fitness are City and Guilds, EdExcel, OCR and Scotvec. Details of awarding bodies are available from Learn Direct (tel: 0800 100 900).

Approved centres

An approved centre is a provider of fitness education and training that has been approved by the awarding body to offer S/NVQ assessments and awards in exercise and fitness. Sprito maintains a list of approved centres on its website www.sprito.org.uk.

Exercise referral schemes

The Department of Health publication *Exercise Referral Systems – A National Quality Assurance Framework* provides guidance on the training and qualifications required for exercise professionals (exercise and fitness coaches and instructors or 'advanced instructors' who work with referred patients). Operating at Level 3 of the national occupational standards, these exercise professionals must demonstrate that they are able to adapt physical activity and develop appropriate long-term physical activity programmes. Further details of the competencies required by exercise professionals and advanced instructors are given in the publication mentioned above.

Sports coaching qualifications for those working with older people

Few national governing bodies of sport have courses designed specifically for leaders, coaches and teachers working with older people. Details of courses for individual sports may be obtained from the individual national governing bodies. For details of these governing bodies contact Sport Scotland (see p.257 for contact details).

Movement and dance

The Movement and Dance Division of the Central Council of Physical Recreation provides training and education for movement and dance leaders and teachers. It has published a national database of teachers and leaders who are qualified to work with disabled and older people (for contact details see p. 236).

Details of other movement and dance training providers are given in the training section of the Information directory.

Finding a suitable training provider

If you are looking for a suitably trained teacher or instructor you should consult the National Register. This is a system of self-regulation for all coaches, teachers and instructors involved in exercise and fitness. It is supported by Sport Scotland and operated by the Fitness Scotland Register of Exercise Professionals. This register performs the same function for exercise instructors as professional registers do for other groups of health professionals. Registration means that the exercise professional meets standards for practice, including continuing education, and insurance. Similar systems of registration are established in England and Wales and details can be obtained from the relevant organisations in the A to Z of useful organisations on p.227.

Appendix 1

Physical activity guidelines for older people

The term 'guidelines' can be used to describe recommendations and advice on, for example:

- the type, intensity and frequency of physical activity for older people
- the type, intensity and frequency of physical activity for older people with specific needs and conditions
- the design of physical activity programmes for older people
- the promotion of physical activity for older people
- policy and strategy relating to physical activity or the specific needs of older people.

In developing programmes with older people, as with other population groups, there are special considerations and approaches that will help to ensure that all physical activity opportunities are enjoyable, appropriately planned, accessible and effective.

Guidelines on the type, intensity and frequency of physical activity for older people

Specific advice on physical activity recommendations for older people can be found in the following documents:

1. National Institute on Aging. *Increasing Physical Activity Among Adults Aged 50 and Older* – A Blueprint. Gaithersburg: National Institute on Aging; 2001
2. World Health Organization. *Keep Fit for Life. Meeting the Nutritional Needs of Older Persons*. Geneva: World Health Organization; 2002.
3. American College of Sports Medicine. Position stand: exercise and physical activity for older adults. *Medicine and Science in Sports and Exercise* 1998; 30(6): 992–1008.
4. Scottish Executive. *Let's Make Scotland More Active*. Edinburgh: Scottish Executive; 2003.

Guidelines on the type, intensity and frequency of physical activity for older people with specific needs and conditions

Growing older is associated with a greater incidence of many diseases. In other words, the prevalence of disease is more common as we age. Underlying disease is rarely a reason not to participate in physical activity and, in effect, people with such conditions are those who have the greatest potential to benefit from physical activity. However, a lack of knowledge on the part of the older person, and of the professionals, may result in a lack of opportunities for older people with such conditions and needs.

Common diseases and conditions often associated with ageing include:

- coronary heart disease (including angina)
- chronic obstructive pulmonary disease (COPD)
- dementia
- diabetes
- falls and accidental injuries
- heart failure
- hypertension (high blood pressure)
- osteoarthritis
- osteoporosis
- postural instability
- Parkinson's disease
- rheumatoid arthritis
- stroke.

The presence of these conditions and other impairments have important implications for the planning of physical activity programmes for the older person.

These relate to:

- the main characteristics of the disease
- the effects of the response to exercise
- the specific aims and benefits of the programme
- the possible effects of any medications
- the physical activity recommendations
- appropriate adaptations
- special considerations
- the motivation and education of the participant.

Specific advice and guidance on appropriate recommendations and programming for these groups (often described as 'special populations') can be obtained from the organisations listed in the A to Z of useful organisations on p.227.

Guidelines on the design of physical activity programmes for older people

When programming exercise for older people it is important to include all the components of fitness and to remember the importance of adapting the exercise and ensuring safety (see Table 20).

Table 20 ***Baseline components underlying exercise programming for older people.***

From: Dinan and Skelton. Reproduced with permission from the authors and Leicester College.

Functional components	Characteristics of the programme
Strength (and power) Endurance Flexibility Balance, co-ordination and speed Fullest possible individual ranges of movement Bone loading (main fracture sites) Functional, postural and pelvic floor muscles Dynamic balance, co-ordination and reaction time Body management in everyday actions (moving from sitting to standing, and getting up and down from the floor) Correction of muscle asymmetry	The programme should be: • enjoyable • balanced • specific • effective • progressive • individually tailored and monitored • educational It should: • use qualified senior specialist instructors • offer choices and opportunities • allow for socialisation through groups and classes It should incorporate: • home-based options • active-living approaches • 'buddy' support systems • senior peer mentor schemes

Guidelines on the promotion of physical activity for older people

The following is a synthesis of advice from national and international documents and recommendations made by professionals with expertise and experience of working with older people:

- Multi-level programmes are required to accommodate the wide range of health and functional capacity found among older people.
- A wide range of activity choices should be available to meet the diverse range of personal preferences and goals found among older participants, including:
  - supervised and self-directed options
  - one-to-one, group and 'solo' options
  - home-based options
  - active-living options.
- Older people are more likely to be sedentary and therefore more de-conditioned than younger people.
- Older people take longer to adapt to training.
- Exercise programmes need to be individually tailored.

- Variety is as important as intensity for long-term adherence.
- Flexible combinations presented with creativity, patience, professionalism and fun will enhance adherence and be appreciated by older participants.
- For the majority of older people, opportunities for socialisation and enjoyment are as important as the activity itself
- Support, recommendation and/or referral for exercise by the GP are powerful motivators for older people. Negative advice from a GP can be a very powerful barrier to an older person becoming more active.
- Education through communication of physical activity messages needs to be specific and related to the interests of older people, e.g. independence and mobility, posture, rejuvenation, enjoyment, retaining social networks.
- Positive messages to older people about functional capacity have been shown to increase performance by 25%. Negative messages reduced gait performance (efficient and balanced walking) by 10%.
- Older people must be recognised as a discerning, skilled population group who appreciate accurate, current and consistent information about the health benefits, purpose and safe practice of physical activity as this helps them to make informed activity choices.
- Programming must consider cost, transport access and scheduling to accommodate a wide range of means, health, behaviours and lifestyles.
- Telephone support helps adherence and compliance at critical phases and decision points – for example following illness or absence from a class.
- Peer mentoring (for example befriending and buddying) can be effective both for recruiting participants and for maintaining adherence, as well as providing rewarding role models for providers.
- The encouragement and support of individual progress is particularly appreciated and effective in improving compliance.

Guidelines on policy and strategy relating to physical activity or the specific needs of older people

General guidelines

Active Living Coalition for Older Adults. *Moving Through the Years. A Blueprint for Action for Active Living and Older Adults.* Mississauga, ON: Active Living Coalition for Older Adults; 1999.

American College of Sports Medicine. *Exercise Management for Persons with Chronic Diseases and Disabilities.* Champaign, IL: Human Kinetics; 1997.

American College of Sports Medicine. *Guidelines for Exercise Testing and Prescriptions*, 6th edn. Champaign, IL: Human Kinetics; 2000.

British Heart Foundation. Physical Activity Toolkit – A Training Pack for Primary Health Care Teams. London: British Heart Foundation; 2001.

Conference Proceedings June 2000; Young A (ed.). *Physical Activity for Patients: An Exercise Prescription.* London: Royal College of Physicians; 2001.

Department of Health. *Exercise Referral Schemes: A National Quality Assurance Framework.* London: Department of Health; 2001.

Robert Wood Johnson Foundation. *National Blueprint – Increasing Physical Activity Among Adults Aged 50 and Over.* Princeton, NJ: Robert Wood Johnson Foundation; 2001.

Arthritis

Arthritis Care
www.arthritiscare.org.uk

Coronary heart disease

British Heart Foundation
www.bhf.org.uk

Diabetes

Exercise and type 2 diabetes: position stand. Available online: www.msse.org.

Giacca A., Shi, Z.Q., Marliss, E.B., Zimnman, B., & Vranic, M. (1994). Physical activity, fitness and Type 1 Diabetes, in C. Bouchard, R.J. Shehard, T. Stephens (Eds.) *Physical Activity, Fitness and Health: International Proceedings and Consensus Statement*. Champaign, ILK., Human Kinetics.

President's Council on Physical Fitness and Sports. Physical activity and the prevention of type 2 (non-insulin dependent) diabetes. *Physical Activity and Fitness Research Digest* 1997;2:10.

Falls prevention and management

Simey P, Pennington B. P*hysical Activity and the Prevention and Management of Falls and Accidents Among Older People:* Guidelines for Practice. London: Health Education Authority, London; 1999.

Skelton DA, Dinan SM. Exercise for falls management: Rationale for an exercise programme to reduce postural instability. *Physiotherapy: Theory and Practice* 1999; 15: 105–120.

Hypertension

Hagberg JM et al. The role of exercise training in the treatment of hypertension. *Sports Medicine* 2000; 30(3): 193–206.

Osteoporosis

American College of Sports Medicine. Osteoporosis and exercise: position stand. *Medicine and Science in Sports and Exercise* 1995; 27(4): i–iv.

National Osteoporosis Society
www.nos.org.uk

Shaw JM, Snow-Harter C; President's Council on Physical Fitness and Sports. Osteoporosis and physical activity. *Physical Activity and Fitness Research Digest* 1995; 2: 3.

Stroke

Wannamethee G, Shaper AG. Physical activity and stroke in middle aged men. *British Medical Journal* 1992; 204: 507–601.

Appendix 2

Identifying potential partners

The national and local policy frameworks identified in Section 2 indicate the range of agencies and organisations that can play a part in promoting physical activity with older people. This appendix provides a guide to some of the people and organisations who could become involved in helping to plan and deliver a physical activity programme for older people.

In the planning of local strategic work and partnerships you may need to consider the following questions in relation to potential players:

- Who are they?
- Where will I find them?
- How could they contribute?
- What can I offer them?

Identifying potential partners checklist

Checklists for identifying potential partners in the health services, physical activity-related organisations, social and care services, local government services and the independent and voluntary sector are provided overleaf

Checklist for identifying potential partners

in the health services

Who are they?	Where will I find them?	How could they contribute?	What can I offer them?
Director of Public Health		Management and development of public health function and services	
Director of Public Health specialists		Analysis and dissemination of research and evidence	
		Co-ordination of public health improvement and services	
		Commissioning of programmes and services	
		Inclusion of older people within the local Health Improvement and Modernisation Programme	
GPs and practice teams	Primary care	Referring older patients to exercise programmes	
	Primary care teams	Motivating older patients to take up physical activity	
Health visitors and district and community nurses	Health boards	Referring older patients to exercise programmes	
		Motivating older patients to take up physical activity	
Accident prevention co-ordinators	Rehabilitation and care programmes	Developing falls and accident prevention strategies	
	Rehabilitation and care	Referring older people to rehabilitation programmes	

Health services – continued

Hospital trusts including geriatricians, rheumatologists, orthopaedic surgeons and old-age psychiatrists	Hospital trusts and care settings	Specialist skills in exercise programming	
	Within both hospital and care settings		
	Separate trusts		
Physiotherapists (and assistants) and occupational therapists (and assistants)			
Specific targeted exercise programmes to meet specific needs, e.g. rehabilitation, increased functional capacity and falls prevention Adapted physical activity practitioners, e.g. clinical exercise therapists			
Community and psychiatric nurses		Motivating patients to take up physical activity	
Ambulance services		Contact with older people who have fallen	
Others			

Checklist for identifying potential partners

in physical activity-related

Who are they?	Where will I find them?	How could they contribute?	What can I offer them?
Physical activity and exercise co-ordinator	Local authority, health promotion, higher education, primary care	Leading strategy and policy	
Sports development officer	Local authority	Development of sport and recreation strategies for older people	
Exercise and dance teachers, sports leaders, sports coaches, fitness instructors	Community settings, groups and clubs	Providing programmes for older people	
Health and fitness club managers	Within local authority owned centres, and the private sector	Providing and marketing appropriate programmes for older people	
Physical activity specialists within national bodies	Independent and medical charities with national development programmes	Specific advice on physical activity and specific needs, e.g. coronary heart disease, diabetes or stroke; guidance on setting up local schemes	
Physical activity peer mentors	Within the independent and voluntary sector	Motivation and advice to peers on initiating physical activity	
Others			

Checklist for identifying potential partners

in social and care services

Who are they?	Where will I find them?	How could they contribute?	What can I offer them?
Care managers	Social services and the independent sector	Investment in physical activity programmes; investment in staff training and education	
Activity co-ordinators	Residential and nursing settings	Organising programmes, and training of staff	
Health and other care workers	Social services, residential settings, day centres and nursing homes	Motivating patients to take up physical activity; leading exercise groups if appropriately trained	
Residential managers and wardens	Residential settings in local authority and care services, and the independent sector	Motivating patients to take up physical activity; leading exercise groups if appropriately trained	
Family and voluntary carers	Residential settings in local authority and care services, and the independent sector	Motivating older people to take up and sustain physical activity	
Physiotherapists	Residential and nursing settings	Advice to activity co-ordinators on care programmes	
Others			

Checklist for identifying potential partners

in local government services

Who are they?	Where will I find them?	How could they contribute?	What can I offer them?
Managers, chief officers	Local authority departments	Strategic planning with other departments. Strategic planning with external partners and agencies	
Transport officers	Transport departments	Better public transport services for older people; providing safe walking and cycling routes	
Town and countryside planners	Planning departments	Development of safe neighbourhoods, spaces and environments	
Adult and community education	Local education authority	Providing activity opportunities for older people; providing appropriate training for teachers and leaders	
Schools	Local education authority	Intergenerational activities; local community facilities and spaces	
Community development services	Community services	Reaching excluded and isolated people; supporting community groups	
Library and information services	Leisure and cultural departments	Providing information services to older people, including directories of local age-related organisations and physical activity opportunities	
Housing services managers	Housing department	Reaching older people	

local government services – continued

Occupational health and pre-retirement service managers	Occupational health	Advice and guidance within pre-retirement programmes	
Accidental injury teams	Environmental health	Co-ordination of falls prevention programmes	

Checklist for identifying potential partners

in the independent and voluntary sector

Who are they?	Where will I find them?	How could they contribute?	What can I offer them?
Older people's forums and groups	Volunteer-led and community-led groups	Consultation on services and opportunities; promotion of programmes	
Age-related voluntary sector, e.g. Age Concern, Help the Aged, University of the Third Age	Local strategic partnerships and in the community	Development and support of physical activity opportunities and services for older people	
Carers and family	Community	Motivating older people to take up and sustain physical activity	
Voluntary workers	National agencies, residential and nursing settings, and hospitals	Encouraging older people through befriending, and through peer mentor and buddy schemes	
Religious and church organisations	Community	Providing information and physical activity opportunities	
Local radio, TV and newspapers	Local media	Appropriate inclusion of positive images of older people; promotion of programmes	
Further education	Further education colleges	Providing physical activity opportunities; developing training for workers and exercise teachers	
Researchers	University departments	Support for evaluation of local schemes	

independent and voluntary sector – continued

Health and fitness clubs	Private sector	Exercise programmes for older people	
Residential managers and wardens	Residential settings (housing associations, charitable trusts and private sector)	Motivating patients to take up physical activity; leading exercise groups if appropriately trained	

Appendix 3

A tool for auditing local provision

Undertaking an audit of local provision might include an examination of what is available in terms of:

- facilities
- conducive environments
- accessible programmes and opportunities
- local activity groups
- expertise and skills
- outlets for promotion and publicity.

The results of this exercise, together with knowledge of the physical activity needs of older people, can be used to identify gaps in provision, inform the strategic development and initiate new programmes. It will also be possible to measure future progress against the results of this audit.

Pages in this appendix can be photocopied and used as the basis for the audit.

Facilities	How many?	Where?	How accessible?
Leisure facilities Swimming pools Health and fitness centres Schools Colleges Community facilities Day centres Mobile facilities Other facilities			
Conducive environments	**How many?**	**Where?**	**How accessible?**
Cycle routes Marked walks Parks and open spaces Other conducive environments			

Accessible programmes and opportunities	How many?	Where?	How accessible?
Workplaces and pre-retirement NHS Local authority Local business Other programmes or opportunities			
Older people settings Day centres Sheltered housing Nursing homes Churches and religious groups Community centres Other older people settings			

Local activity groups	How many?	Where?	How accessible?
Age Concern Help the Aged University of the Third Age Walking groups, (e.g. Paths to Health) Exercise classes Dance groups Other local groups			
Expertise and skills	**How many?**	**Where?**	**How accessible?**
Qualified exercise teachers Community sports leaders Community physiotherapists Other expertise/skills			

Outlets for promotion and publicity	How many?	Where?	How accessible?
Libraries Newspapers Cable TV, radio Mobile displays Primary health care Other outlets			

Appendix 4

Troubleshooting guide

Why evaluate?
What are the aims?
What are the objectives?
What are the outcome indicators?
What is a baseline survey?
Why should I complete a baseline survey?
What does SMART mean?
What different ways can I collect data?
How do I present the findings?

Why evaluate?

Evaluations are an important part of a project because they allow the people involved to see what has been achieved as a result of the intervention. It will also allow you to:

- check whether the stated aims and objectives of the intervention have been met
- improve practice during the intervention
- share what works and what doesn't work.

Above all, project evaluations should attempt to show:

- how people have benefited from the intervention
- that funding has been well used.

It is important that project members monitor and collect information about their work on a regular basis. This will enable the team to plan and carry out the project more effectively and allow the team to respond to changes or challenges. In addition:

- if data is collected throughout the whole project from start to finish it will be easier to report findings, assess the impact of the project and learn from the experience
- it will allow things that don't work to be changed before it is too late
- it will allow the users of the project to be monitored to keep track of whether the services are accessible to everyone in the target group.

What are the aims?

Aims are general statements about what you are hoping to achieve in your project.

- Do not worry about differences in opinion. There may be differences of opinion among the various stakeholders who may have diverse views about the reasons for the needs, and differing priorities in terms of how they should be tackled. A range of opinions can produce thoughtful debate and robust initiatives but planners should take care to ensure that it does not produce aims that lack focus or clarity.
- Do make collaboration a priority. Physical activity initiatives often require collaboration. Everyone with a stake in the results should participate, including formal support agencies and informal support groups. Above all, particular care should be taken to involve the consumers of the service; they know the most about what they need.

What are the objectives?

Objectives are specific statements of what you hope to achieve.

Ideally objectives should be SMART:

- specific
- measurable
- attainable
- results oriented (i.e. written as something to be achieved)
- time related.

More information on SMART objectives is provided later in this document (see What does SMART mean?).

In addition, objectives need to be realistic and relevant. Measurable does not mean that it should be easy to measure but rather that it is possible to tell whether or to what extent the objective has been achieved.

It is possible to have *implementation objectives* that explain what you are going to do. These objectives are assessed on whether or not they were implemented and how well they were implemented. Things to think about include:

- What do you plan to do?
- How are you going to do it?
- Who will be responsible for doing what?
- What are your priorities?
- Who does the project need to work with?

Outcome objectives explain what is going to occur as a result of your efforts. For example, outcome objectives might be:

- to increase awareness of your new facility
- to receive over 80% satisfaction ratings
- to increase the number of users
- to increase the number of users who continue with the programme for 6 weeks or more
- to increase the number of female users.

What are outcome indicators?

Each objective needs to have outcome indicators alongside that are clearly set out. An outcome indicator gives you the criteria to determine whether you are successful or not. They should set out:

- what you expect to change
- what you expect to succeed
- what would be considered effective
- how you will know if you have accomplished your objectives.

At the beginning of the project you might be unsure about the level of expectation of your targets; consider the lowest common denominator first and then make an estimate based on that. The following may be useful in setting outcome indicators.

Aims: why are we doing this project?	Objectives: what specific things do we want to achieve?	Measures of success: how will we identify success?

What is a baseline survey?

A baseline survey aims to record what is currently going on at your project site *before* your initiative starts. The information you provide about what is currently happening is what we refer to as 'baseline data'.

Why should I complete the baseline survey?

Baseline surveys are important to make sure that:

- the impact of this initiative does not go unrecorded
- your good practice is recognised and shared with others
- future policy and practice is informed by the lessons that are learnt form this evaluation thus maximising impact for all involved.

In addition, you can:

- use the baseline survey to reflect on current practice at your project site
- use the baseline survey to identify issues that you may want to investigate during self-evaluation
- demonstrate progress towards achieving national, regional and local aims and your own aims by using baseline and subsequent surveys to make comparisons.

What does SMART mean?

The SMART acronym means:
Specific: indicators should not be vague. Be as precise as possible when stating your indicators. For example, instead of stating 'members of the community' be precise. Which members of the community?

Measurable: measurable does not mean that it should be easy to measure but rather that it is possible to tell whether or to what extent the indicator has been achieved.

Attainable: indicators are only useful if it is possible to recognise that they have been achieved.

Realistic: challenge yourself without having indicators that are so unrealistic they will never be achieved.

Time limited: you need to clearly state the timescale over which you will achieve your indicators.

What different ways can I collect data?

Methods of collecting data, which can be used on their own or in combination, include:

- a daily record of what happens
- activity logs of users
- minutes of planning meetings
- diaries
- comment boxes
- feedback from users
- press cuttings
- video recordings
- questionnaires
- interviews.

It is important to choose methods that are suitable for collecting the information you require and that are appropriate for older adults. To help choose the appropriate techniques for collecting evidence, ask yourself the following questions:

- Will the techniques give me the evidence I need?
- Are they flexible enough to reveal unexpected outcomes?
- Are the techniques 'user friendly' for everyone taking part?
- Do they take account of equal opportunities?
- Has everyone agreed how evidence will be used?
- Will evidence be collected from a wide range and number of users?
- Can I get different points of view to make the evidence convincing?
- Can evidence be collected without disrupting the intervention, perhaps as a daily routine?

How do I present the findings?

Most projects involve writing a report that outlines the findings; however, this is not the only format you can use. You may present your findings verbally or through alternative media such as posters or videos. When you present yourfindings it is useful to include:

- an introduction
- a summary of the aims and objectives of the project
- a summary of the evaluation activities undertaken
- evidence documenting the progress of the project towards achieving the aims and objectives, highlighting areas of high achievement and any areas of concern
- future plans as a result of the evaluation.

Appendix 5

A planning and evaluation framework for physical activity in later life

Introduction

This appendix contains a sample of completed templates using the steps outlined in the LEAP approach (see Section 4) and selected further templates to assist with planning and evaluation of physical activity with older adults in later life.

LEAP sample

This section can be used as a practical action planning tool to help you work with your partners to plan, deliver and evaluate physical activity programmes for adults in later life.

The focus of the example is on setting up a healthy walking group by a community health partnership. The outcomes of the project are identified as follows:

1. The community sets up a healthy walking group.
2. The walking group is well managed.
3. Community members are trained as walk leaders and promoters.
4. The community has access to a wide range of walking routes.
5. The walking group is valued and used.
6. The benefits of walking for health are raised.
7. The profile of the healthy walking group is raised.
8. The organisers gain confidence and skills.
9. Confidence and skills are transferred to other community needs.
10. New community activists become involved.
11. Community health and well-being is improved.

Each stage of the LEAP process is accompanied by an example to assist you with every step of the planning and evaluation process.

Blank spaces are provided for you to record your responses as you work through the planning and evaluation steps. There are also notes and questions at the bottom of each page for you to consider and to assist you with each stage.

You may wish to photocopy these pages so that they may be used again.

The example relates to priorities at a project level; however, the same approach can be applied to planning and evaluating broader programmes or policies that would have wider outcomes with different kinds of inputs, processes and outputs.

Step 1 Defining the issue and identifying needs	
Healthy walking group for those in the Making Activity Choices category	
What are the issues in relation to physical activity in later life for the community?	
• The majority are inactive, making inactivity an important public health issue for this community • The number of people that could benefit from becoming more active could be in the region of 900 • Many people are not aware of the benefits of becoming more active • Local opportunities for physical activity are limited • Barriers to participation include: lack of confidence, interest, facilities; cost; and peer influence/attitudes • Motives to participation include: enjoyment; socialising; and physical and mental well-being	Your notes
What are the needs in relation to physical activity in later life for the community?	
• Establish opportunities for physical activity within the community, such as a healthy walking group • Raise awareness of the benefits of physical activity • Address the barriers and motivations to being more active • Deliver appropriate opportunities locally • Provide information about local opportunities	Your notes
Things to think about: • What evidence/methods are you going to use to help define issues and identify needs? • How are you going to involve all stakeholders in this process?	

Step 2 What needs to change? *Outcomes*	
Healthy walking group for those in the Making Activity Choices category	
• The community sets up a healthy walking group • The walking group is well managed • Community members are trained as walk leaders and promoters • The community has access to a wide range of walking routes • The walking group is valued and used • The benefits of walking for health are raised • The profile of the healthy walking group is raised • The organisers gain confidence and skills • Confidence and skills are transferred to other community needs • New community activists become involved • Community health and well-being is improved	Your notes
Things to think about: Is change desired in: • the quality of life of individuals, groups and communities? • the confidence and capacity of people and communities to control their circumstances? • the role of service agencies and/or partners? • attitudes and perceptions of the community? What methods are you going to use to achieve this? How are you going to involve all stakeholders in this process?	**Things to do:** Establish a shared vision of what needs to change Describe the vision as a series of outcomes

Step 3 How will we know? *Outcome indicators*	
Healthy walking group for those in the Making Activity Choices category	
• Report with details of date group established, details of a launch, information about facilitators and participants and record of activity to date • Training of facilitators and walk leaders, records of decisions, marketing and publicity, participants' satisfaction • Facilitators training, walk leaders training, first aid training • Photos of physical objects: signage, routes and paths, walking maps, records or environmental improvements • Records of number of participants, frequency of use, adherence to walking programmes • Surveys and focus groups with participants and non-participants and stakeholders • Health-enhancing physical activity on the agenda of community and partnership meetings, record of local media publicity, distribution of publicity leaflets, events, promotional material, survey with local community to gauge awareness • Observations of facilitators and leaders, reports of expressed need for worker support, expansion of the walking group • Interviews with participants to gage their involvement in other community activities and transferability of skills • Records of new participants to the group, level of involvement • Health and well-being survey, measurement of activity levels, objective measures of blood pressure, quality of life scores or fitness	Your notes

Things to think about:

What are the critical things you need to know about?

- Are they shared by all the stakeholders?
- Can they be easily measured – using existing information sources?
- Can you establish a baseline using these indicators?

Can you use these indicators to demonstrate:

- How much has changed? *Quantity*
- How beneficial has the change been? *Quality*
- Who has benefited from the change? *Equity*
- What resources have been used? *Efficiency*
- How far have the planned outcomes been achieved? *Effectiveness*

Step 4 How will we know? *Outcome indicators*		
Healthy walking group for those in the Making Activity Choices category		
Role	Inputs: what resources will be used?	Your notes
Community	skills, commitment, local knowledge, networks, links to other services/ groups, publicity, volunteers	
Partner agencies	• Staff time: outdoor access officer assigned to work with community • Equipment: signage, maps, pedometers • Training: leadership/health promotion/first aid • Funding: small grants programme • Services/facilities: parks and gardens, walkways, footpaths, tracks and trails, lighting • Advocacy: supportive policies, champion approach • Publicity: magazines/newsletters/press releases • Volunteers	
Others external to the local setting	• Grants: Green Space, the Big Lottery, European Fund • Training: walk leaders, scheme initiators, coaching guidance, policy statements, advice, publicity	
Things to think about: • Material and non-material resources • User/community resources and assets • The resources of your project and partner agencies • Other agency resources that could be engaged • The quality and quantity required		**Things to do:** Identify the level of investment or resources that will be made and who will provide them

Step 4 What methods will we use? *Processes*	
Healthy walking group for those in the Making Activity Choices category	
• Investigating needs • Providing information • Building confidence • Identifying opportunities • Project planning • Advocacy and support • Group work • Networking • Training • Action research • Marketing and publicity • Community organising • Campaigning	Your notes

Things to think about:

Before adopting methods to use (processes), it is useful to:

- Consider the methods you will use against the changes you identified in Step 2. Will these methods have any impact on the change you seek?
- Review the resources (inputs) available. If the inputs are not suited to the processes then there is a need to identify the relevant inputs or adjust the processes to suit what is feasible within the resources at the disposal of all stakeholders

Step 4 What will we do? *Outputs*	
Healthy walking group for those in the Making Activity Choices category	

Outcome: community members will be supported and trained to be facilitators, leaders and walking promoters
 	
Outputs:
• By March, PR Officer to promote training opportunities in local press and collect notes of interest
• By April, outdoor access officer to undertake training needs assessment
• By May, outdoor access officer to deliver:
  • one walk leaders training course
  • one walking group initiators course
  • one first aid course
  • one health-promoting practice course
	Your notes

Things to think about:

This stage of the planning and evaluation process involves being specific about the actions that stakeholders will take and it is essential to clarify and agree each output in terms of:

- What will be done?
- Who will do something?
- When will it be done?
- Will these activities lead towards the outcomes you seek?
- Are there any obstacles and risks?

Step 5 How will we know we did it? *Output indicators*	
Healthy walking group for those in the Making Activity Choices category	
Outcome: community members will be supported and trained to be facilitators, leaders and walking promoters Output indicators: • Number of participants wishing to become facilitators, leaders and walking promoters • Number of training courses delivered • Number of participants attending training • Number of participants facilitating, leading and promoting walking groups	Your notes
Things to think about: • This is monitoring – tracking your outputs • What do you really need to know about and how will you build it into your recording and information systems? • Are there any shared opportunities in the record-keeping systems? • Can a system be developed that all stakeholders can sign up to?	

Supplementary templates

The templates in this section are designed to help with all aspects of the planning and evaluation process. They are divided into three sections: 'pre-evaluation', 'process' and 'reporting'.

The pre-evaluation section contains:

- baseline survey template
- engaging stakeholders template
- designing and planning template
- developing an evaluation plan and timetable template.

The process section contains:

- collecting data template
- recording data template
- process credible evidence template
- analysing data template.

The reporting section contains:

- report-justified conclusions template
- sharing your findings template
- act upon findings template
- success story template.

Pre-evaluation templates

Baseline survey template

1	Name of your project
2	Provide a brief description of your project

3	Describe the aim of your project: a. What outcomes are you aiming to achieve? b. What do you want to achieve once your project is complete? c. There may be a number of aims

4a	What are the specific objectives that your project is trying to achieve? These are more specific events or actions that will contribute towards your aims	**4b**	For each objective clearly define a success indicator. Success indicators should meet the SMART principle

5	Why are you carrying out your evaluation? a. To gain an insight into the programme? b. To identify strengths and weaknesses to improve the programme? c. To assess the effects of the programme?
6	Who will have overall responsibility for the evaluation?
7	Who will undertake the evaluation activities?

Engaging stakeholders template

1	Why do you think stakeholders should be involved?
2	Ask everyone immediately involved with the programme to brainstorm and produce a list of partners To help identify stakeholders, consider: a. Who are the implementers? b. Who are the participants, the individuals affected by the project? c. Who are the major decision makers? d. Who are the partners that support the project?
3	Ask everyone immediately involved with the programme to brainstorm and produce a list of partners To help identify stakeholders, consider: a. Who are the implementers? b. Who are the participants, the individuals affected by the project? c. Who are the major decision makers? d. Who are the partners that support the project?
4	Ensure all stakeholders agree on priorities and future actions to be taken

Resources

1	Identify the resources *you* have available for the evaluation
a	Time
b	Money
c	Staff (employees/volunteers)
d	Equipment
e	Knowledge/skills/expertise
f	Other
2	Identify the resources *your partners* have available for the evaluation. Determine whether partner organisations are willing to provide access to their resources
a	Time
b	Money
c	Staff (employees/volunteers)
d	Equipment
e	Knowledge/skills/expertise
f	Other

table continues overleaf

3	Time: a. How much time do you need to gather information? b. How much time can you give to the evaluation? c. How much time will you need from partners?
4	Money: a. How much money will be needed to carry out the evaluation? b. How much money have you allocated for evaluation? c. How much money can partnerships provide?
5	Staff: a. In total, how many staff are able to assist? b. Do employees need to be trained? c. Can volunteers be trained to assist? d. Consider expenses involved in training
6	Equipment: a. What equipment do you need to collect, store and analyse information?
7	Knowledge/skills/expertise: a. Do the people responsible for the evaluation have sufficient knowledge, skills and expertise to carry it out? b. Is there access to specific expertise to plan and support the evaluation?

Designing and planning template

1	Do you have an organisational structure that can support the collection of information?
2	Identify expected outcomes What do you expect to see hear or measure?
3	Determine your evaluation questions that will assess whether you have reached or are making progress towards your success indicators? Finances and time constraints may limit the type of information that can be gathered. Every programme is unique and so will be your evaluation. Questions you may find of help to build upon include: a. How have participation rates changed? b. What policies, practices and programmes have changed within the school or community? c. Have peoples behaviours changed? What and how? d. Are these changes because of your efforts or may there be other influences?
4	The evaluation must be feasible and practical a. Is it cost-effective? b. Will it produce information of sufficient value that the resources expended will be justified? c. Are the processes and procedures of the evaluation monitored and described in enough detail that the adequacy of the information can be assessed? d. Have you any ethical considerations to bear in mind? e. How are you going to ensure participant confidentiality and data protection?

Developing an evaluation plan and timetable

1	Your evaluation plan needs to include details of the timing and development of all activities. It is essential to establish clear procedures It is important to consider: a. Evaluation design b. Measurement methods c. Pilot testing and revising measurement methods (if required) d. Collecting and processing data e. Analysing the data findings f. Writing the evaluation report g. Disseminating results to those involved
2	What timescale is attached to the evaluation? a. For you b. For stakeholders and partners
3	Are there critical times, events and opportunities to undertake evaluation? e.g. at a one-off sports festival, at the end of a course

Process templates

Collecting data template

1	Identify all possible sources of information: a. Programme participants b. Staff c. General public d. Community leaders e. Funding officials f. Critics, the media g. Topic area specialists
2	Carefully consider the most appropriate data collection method The main methods of data collection are: a. Questionnaires/surveys/checklists b. Interviews c. Records and documents d. Observations Think about: a. What information is needed to make current decisions? b. Which method is least time consuming and least costly? c. Which method is likely to provide the most relevant and accurate information? d. Will the information appear credible to decision makers and stakeholders? e. Will the method of data collection be suitable for the target group? Consider participants in terms of age, developmental level, language and cultural background f. Who has the ability to administer the method of data collection? Will training be needed? g. How will you follow up a survey to ensure a good response rate? h. How will the data collected be analysed? Think about the effort, time, cost and other resources involved
3	Consider using a combination of data collection methods. This would enable findings to be checked, result in a more convincing evaluation and provide support for statements and conclusions

table continues overleaf

4	What are the benefits of the chosen data collection method? What are the limitations? a. Is your method culturally acceptable to participants? b. Does it take account of ethics and confidentiality? c. Will data be collected from a wide range of people reflecting the target group? d. Can evidence be collected without disrupting the running of the project? e. Is the method flexible enough to reveal unexpected outcomes?
Benefits	Limitations
5	Data collection should be a continuous process. Will data be collected: a. Before/at baseline? b. During the project? c. At the end of the year?

Recording data template

1	How is the data going to be recorded? a. Audio tape interviews b. Written reports c. Computerised documents d. Focus group discussions e. Observation
2	Who will record the data? Might the recorder be biased in any direction?
3	Are the data going to be computerised and the results shared?

Process credible evidence template

1	Process the quantitative data: a. Make copies of data and store the master copies away for future reference b. Tabulate the information c. Compute any relevant statistics d. Do you have access to specialists to perform complex statistical analysis; if not can you recruit volunteers or hire someone externally?
2	Process the qualitative data: a. Read through all the data b. Organise comments/documents into similar categories and label these categories c. Attempt to identify patterns, associations and causal relationships. Look for recurring themes d. Retain all documents for several years following the completion of the report in case they are needed for future reference

Analysing the data template

1	Analyse the data aiming to answer your evaluation needs and questions. Remind yourself why you undertook the evaluation in the first place
2	Have you involved partners and stakeholders in the understanding and interpretation of findings?
3	What were the key findings?
4	Were there any unexpected outcomes? They must also be explored
5	When analysing and interpreting the results it is important to look beyond the raw data and ask what the results mean. Attempt to put the information into perspective Consider the following: a. Do the results make sense? b. How do the results compare with what you expected to find? c. Did you meet all success indicators? d. Did you miss some success indicators? e. What conclusions can you make, referring back to the original evaluation questions? f. How sure are you that your intervention caused these results? g. Were there any other factors that could have contributed to the results? h. How could the programme be improved? i. Report the conclusions you come to and recommendations you make

Reporting templates

Report-justified conclusions template

1	Who will be responsible for writing the report?
2	The report must have structure Consider including the following sections: a. Background and purpose b. Approach to evaluation c. Key findings d. Impact e. Learning points f. Future courses of action and recommendations g. Strengths and weaknesses of the evaluation
3	The key findings: a. What do the results show? b. Include all relevant results, non-significant as well as significant. It is important to learn from approaches that didn't work c. Are the results similar to what you expected? d. Data that prompt new questions can only add credibility to the programme e. Are there alternative explanations for your results? f. Whenever possible, analysis should be supported by findings of both quantitative and qualitative data. Sometimes they will be supportive of each other, other times they will provide checks and balances for findings

table continues overleaf

4	What is the impact of these findings? What do these results mean for your project?
5	Have you identified future recommendations? a. What are the pros and cons of each recommendation? b. Which changes are most important and feasible to implement? c. How can you ensure these actions are implemented?

Sharing your findings template

1	Who will benefit from sharing your evaluation findings? The target audience of the evaluation report is a key consideration. Who is the evaluation report intended for? a. Staff and colleagues b. Participants in the programme c. Parents d. Young people e. Stakeholders and partners f. Media
2	How will you disseminate information to these people and in how much detail? a. Paper copy b. Electronic email version c. Summary d. The whole document
3	When will these results be communicated?

Acting upon findings template

1	Set up an action plan to implement the recommended changes
2	How will you persuade project partners to act upon recommendations?

Success story template

What is the name of your setting?

What was the setting like when you started?

Please write down your baseline information describing what your participants were like before they started to change.

What were your objectives?

Please write your specific objectives – what were you trying to improve?

What did you do?

Please write notes about what you did and how you went about it?

What difference did you make?

Please note down the specific changes you saw as a result of what you did.

How did you collect information?

Please list the methods you used to measure the success of the work (e.g. giving participants questionnaires, teacher observation, looking at attendance records).

What difficulties did you encounter and how did you overcome them?

Please note down any difficulties you had and the steps you took to overcome them.

Why did you succeed?

Please write notes on why you think your efforts worked well. What strategies do you think were particularly successful?

Information directory

A to Z of useful organisations

This section provides contact details for all of the agencies and organisations referred to in the Active for Later Life resource.

KEY

EQU — A company that provides equipment and/or materials related to teaching physical activity and exercise classes and groups with older people.

INFO — An organisation that, via its website or publications, provides educational information for use by older people.

INT — An international organisation (only the website is provided).

NAT — A national programme that may be appropriate for work with older people.

PUB — A source of publications that may be useful for professionals.

RES — A source of research activities and publications that may be useful for professionals.

TRA — A training provider or a national training programme that may be appropriate for those providing local physical activity programmes for older people.

Neither the British Heart Foundation nor Health Scotland endorses or guarantees the suitability of any of the organisations listed in this section. Individuals should contact their doctor for specific advice on any medical problems.

The details were correct at the time of going to press.

A

INT

Active Ageing Partnership

www.agingblueprint.org

For details of the US National Blueprint for increasing physical activity for adults aged 50 and older.

INT

Administration on Aging

www.aoa.gov

The Administration on Aging (AOA) is an agency of the US Department of Health and Human Services, developed from the Older Americans Act of 1965. The website provides information on opportunities and services to help increase the quality of life and independence of older people. Although this site contains information that is specific to American people, it also contains more general information which is appropriate internationally. Information includes: consumer fact sheets, statistics about older people, freedom of information act and elder abuse prevention. The site also includes a section called Aging-related websites that contains information provided by the National Aging Information Center (NAIC). NAIC provides a range of services including an online directory of Internet resources called Aging Internet information notes. The notes begin with a brief description of the subject area, followed by web pages and addresses and hyperlinks organised by public interest subtopic or intended audience. This is an extremely useful and comprehensive part of the website and includes links to websites covering 60 topic areas including exercise and fitness. The site provides over 50 links for exercise and fitness for older people.

NAT INFO

Age Concern Scotland

Causewayside House

160 Causewayside

Edinburgh EH9 1PR

T 0845 833 0759

E enquiries@acscot.org.uk

W www.ageconcernscotland.org.uk

Rehabilitation and Ageing Division

School of Community Health Sciences

University of Nottingham

University Park

Nottingham NG7 2RD

T 0115 846 6901

www.nottingham.ac.uk/chs

Alzheimer Scotland – Action on Dementia

22 Drumsheugh Gardens

Edinburgh EH3 7RN

T 0131 243 1453

F 0131 243 1450

E alzheimer@alzscot.org

W www.alzscot.org

Alzheimer's Society

TRA INFO RES

Gordon House

10 Greencoat Place

London SW1P 1PH

T 020 7306 0606

E enquiries@alzheimers.org.uk

W www.alzheimers.org.uk

The Alzheimer's Society is the UK's leading care and research charity for people with all forms of dementia and their carers. The website provides information about dementia and contact details for local support networks. There is also a section on the site specifically for carers and professionals. This includes information on caring strategies and emotional support and also provides a link to advice sheets on a range of topics, such as staying healthy, which contains information on exercise.

American College of Sports Medicine (ACSM)

INT TRA

W www.acsm.org

The website gives details of the ACSM position stand on exercise and physical activity for older adults and the United States Surgeon General's report on physical activity and health.

Anchor Trust

1st floor

408 The Strand

London WC2R 0NE

T 020 759 9100

E enquiries@anchor.org.uk

www.anchortrust.org.uk

Aquafusion

TRA

9A Cleasby Road

Menston

Ilkley

West Yorkshire LS29 6JE

T 01943 879816

E info@northernfitness.co.uk

W www.aquafusion.co.uk

Arthritis Care in Scotland

Unit 25a

Anniesland Business Park

Glasgow G13 1EU

T 0141 954 7776

E scotland@arthritiscare.org.uk

W www.arthritiscare.org.uk

The website contains details about arthritis, current news, information packs, services and an online registration form for regular updates. The site also provides routes to contact details for local representatives and a freephone number for the arthritis helpline.

Arthritis Research Campaign

Copeman House

St Mary's Court

St Mary's Gate

Chesterfield

Derbyshire S41 7TD

T 0870 850 5000

E info@arc.org.uk

W www.arc.org.uk

B

Back Care – The Charity for Healthier Backs

16 Elmtree Road

Teddington

Middlesex TW11 8ST

T 020 8977 5474

W www.backcare.org.uk

E website@backcare.org.uk

Basketball Scotland

Caledonia House

Redheughs Rigg

South Gyle

Edinburgh EH12 9DQ

T 0131 317 7260

F 0131 317 7489

W www.basketball-scotland.com

E sba@basketball-scotland.com

Beth Johnson Foundation (including the Centre for Intergenerational Practice)

TRA NAT

Parkfield House

64 Princes Road

Hartshill

Stoke-on-Trent

Staffordshire ST4 7LJ

T 01782 844036

W www.bjf.org.uk

E admin@bjf.org.uk

Better Government for Older People

NAT RES

Better Government for Older People Network

York House

207–221 Pentonville Road

London N1 9UZ

T 0870 770 3292

E information@bgop.org.uk

W www.bgop.org.uk

Better Government for Older People (BGOP) is part of the UK's Modernising Government agenda and is steered by a consortium of six partners. BGOP is about integration, joined-up government and making a difference by listening and working together. Twenty-eight pilot projects were run throughout the UK, covering a broad range of issues including health and social services. The site contains details of the findings of the BGOP programme including news on programme developments, a reference section with content drawn from the pilot projects and a forum for online communication and debate between members. Interested others can access parts of the site and can apply for membership of the network.

British Cardiovascular Society

9 Fitsroy Square

London W1T 5HW

T 020 7383 38887

W www.bcs.com

E enquiries@bcs.com

British Association for Cardiac Rehabilitation

TRA

Phase 4 Training

Town Hall Exchange Castle Street

PO Box 355

Farnham

Surrey GU9 7NDT 01252 720640

E bacrphase4training@virgin.net

W www.bcs.com

British Association of Sport and Exercise Sciences (BASES)

Leeds Metropolitan University

Carnegie Faculty of Sport and Education

Fairfax Hall

Headingley Campus, Beckett Park

Leeds LS6 3QS

T 0113 2836162

W www.bases.org.uk

BASES is the professional body for all those with an interest in science, sport and exercise. The website provides information and advice on five main areas: studying for a degree in sport and exercise science in the UK; career opportunities for graduates and postgraduates in sport and exercise science; how to become an accredited sport and exercise scientist; opportunities for continuing professional development; and research grants. The site also provides details on the sports science strategy and exercise science strategy developed by BASES.

RES

British Geriatrics Society

Marjory Warren House

31 St John's Square

London EC1M 4DN

T 020 7608 1369

E info@bgs.org.uk

Scottish contact:

Dr David A Stewart

Consultant Physician, Medicine for the Elderly

Victoria Infirmary

Glasgow G41 3DX

T 0141 201 6194

F 0141 201 6159

E david.stewart@gvic.scot.nhs.uk

W www.bgs-scotland.org.uk

The website provides information on a range of subjects including training, grants and publications for anyone interested in geriatric medicine or gerontology. It also gives details of 12 special interest groups including health promotion and falls and bone health.

INFO RES

British Heart Foundation

14 Fitzhardinge Street

London W1H 6DH

T 020 7935 0185

E internet@bhf.org

W www.bhf.org.uk

British Heart Foundation Scotland

TRA INFO RES

4 Shore Place

Edinburgh EH6 6UU

T 0131 555 5891

E scotland@bhf.org.uk

The website provides in-depth information on the programme of activity of the British Heart Foundation (BHF), from research activities through to BHF shops. It also provides information on those health behaviours that are closely related to heart health, including physical activity/exercise, through the Heart health link.

British Heart Foundation National Centre for Physical Activity and Health

INFO RES PUB TRA

Loughborough University

Ashby Road

Loughborough

Leicestershire LE11 3TU

T 01509 223259

W www.bhfactive.org.uk

E bhfnc@lboro.ac.uk

Established in 2000, the BHF National Centre aims to identify and address significant gaps in the research, knowledge base and resources needed to effectively promote physical activity for the primary and secondary prevention of diseases. The website provides details of the National Centre's programmes, information packs relating to older people and physical activity, including the Active for Later Life page, and work on senior peer health mentoring, as well as fact sheets on older people and physical activity. Programmes for older people include the Senior Peer Mentor Physical Activity Motivator programme.

British Lung Foundation

INFO PUB RES

78 Hatton Garden

London EC1N 8LD

T 020 7831 5831

W www.lunguk.org

E enquiries@blf-uk.org

British Lung Foundation Scotland

T 0141 229 0318

British Nutrition Foundation

High Holborn House

52–54 High Holborn

London WC1V 6RQ

T 020 7404 6504

E postbox@nutrition.org.uk

W www.nutrition.org.uk

TRA

British Orienteering Federation

8a Stancliffe House

Whitworth Road

Darley Dale

Matlock

Derbyshire DE4 2HJ

T 01629 734042

E bof@britishorienteering.org.uk

W www.britishorienteering.org.uk

RES

British Society of Gerontology

W www.britishgerontology.org

E info@britishgerontology.org

The website provides information on a range of subjects including conferences and seminars and details of gerontology resources.

TRA

British Tai Chi Chuan Centre

PO Box 6404

London E18 1EX

T 020 8502 9307

E jdiatcc@taichiwl.demon.co.uk

W www.taichiwl.demon.co.uk

TRA

British Trust for Conservation Volunteers (BTCV)

Scottish Regional Office

Balallan House

24 Allan Park

Stirling FK8 2QG

T 01786 479697

E Scotland@btcv.org.uk

W www.btcv.org/greengym/

The BTCV Green Gym programme offers the opportunity to improve fitness by involvement in practical conservation activities such as planting hedges or creating and maintaining community gardens.

British Veterans Athletics Federation

156 Mitcham Road

Croydon

Surrey CR0 3JE

T 020 8683 2602

For Scotland:

E scottishmastersathletics@fsmail.net

W www.bvaf.org.uk

British Wheel of Yoga

25 Jermyn Street

Sleaford

Lincolnshire NG34 7RU

T 01529 306851

E office@bwy.org.uk

W www.bwy.org.uk

C

Candoco Dance Company

TRA

2T Leroy House

436 Essex Road

London N1 3QP

T 020 7704 6845

E info@candoco.co.uk

W www.candoco.co.uk

Carers National Association

INFO

Ruth Pitter House

20–25 Glasshouse Yard

London EC1A 4JT

T 020 7490 8818

E info@ukcarers.org

W www.carersuk.demon.co.uk

Carers Scotland

91 Mitchell Street

Glasgow

G1 3LN

T 0141 221 9141

F 0141 221 9140

E information@carerscotland.org

INFO

Central Council of Physical Recreation

Francis House

Francis Street

London SW1P 1DE

T 020 7854 8500

E info@ccpr.org.uk

W www.ccpr.org.uk

The website provides details of the activities of the Central Council of Physical Recreation (CCPR) and the work of the British Sports Trust, the charitable arm of the CCPR. Details of the campaigns run by the CCPR are also provided on the website, including the CCPR's sports manifesto Active Britain. There are 85 links split into six sections: members (of CCPR); connected organisations; sports councils; related organisations; government departments; and lottery information.

TRA

Central Council of Physical Recreation – Movement and Dance Division

Address as for Central Council of Physical Recreation.

Members provide training and education for movement and dance leaders and teachers. It provides a national database of teachers and leaders qualified to work in particular with disabled and older people. The Exercise and Dance Initiative (T 020 7854 8516) is an independent initiative funded by Sport England, which works in partnership with the CCPR. It offers lobbying and communications services to organisations that provide opportunities to the public for social and recreational dance, dance-based exercise, yoga and similar physical activities.

INFO PUB TRA

Centre for Accessible Environments

Nutmeg House

60 Gainsford Street

London SE1 2NY

T 020 7357 8182 (minicom)

E info@cae.org.uk

W www.cae.org.uk

Centre for Gerontology and Health Studies

Professor Mary Gilhooly

University of Paisley

Paisley Campus

Paisley PA1 2BE

T 0141 848 3771

F 0141 848 3891

E m.gilhooly@paisley.ac.uk

Centre for Policy on Ageing

RES PUB

19–23 Ironmonger Row

London EC1V 3QP

T 020 7553 6500

E cpa@cpa.org.uk

W www.cpa.org.uk

The website includes the section AgeInfo – an information service about old age and ageing, which provides a number of searchable databases available on CD ROM. The site provides around 100 links to worldwide resources in ageing, covering the UK, Europe, Asia, Australasia, North America and the Middle East, on issues relating to older people.

Charities Aid Foundation

INFO

Kings Hill

West Malling

Kent ME19 4TA

T 01732 520000

E enquiries@caf.charitynet.org

W www.charitynet.org

Chartered Society of Physiotherapists

INFO PUB RES

14 Bedford Row

London WC1R 4ED

T 020 7306 6666

W www.csp.org.uk

College of Occupational Therapists

106–114 Borough High Street

Southwark

London SE11 1LB

T 020 7357 6480

W www.cot.uk

The website includes a special section on occupational therapists working with the elderly (OCTEP).

Croquet Association

Cheltenham Croquet Club

Old Bath Road

Cheltenham

Gloucestershire GL53 7DF

T 01242 242318

E caoffice@croquet.org.uk

W www.croquet.org.uk

D

Dance in Scotland

Scottish Arts Council

12 Manor Place

Edinburgh EH3 7DD

T 0131 226 6051

W www.scottisharts.org.uk

Diabetes UK in Scotland

Savoy House

140 Sauchiehall Street

Glasgow G2 3DH

T 0141 332 2700

E scotland@diabetes.org.uk

W www.diabetes.org.uk

The website provides information on the management and prevention of diabetes and also includes a How we help section, which describes the wide range of services offered by Diabetes UK (formerly the British Diabetic Association). This includes a publications catalogue that contains an eight-page article on physical activity and diabetes, which can be downloaded free of charge.

INFO TRA

Disabled Living Foundation

380–384 Harrow Road

London W9 2HU

T 020 7289 6111

E info@dlf.org.uk

W www.dlf.org.uk

E

Education Department

Scottish Executive

Victoria Quay

Edinburgh EH6 6QQ

T 0131 556 8400 or 0845 774 1741

F 0131 244 8240

E ceu@scotland.gov.uk

Enterprise, Transport and Lifelong Learning Department Secretariat

Scottish Executive

6th Floor

Meridian Court

Cadogan Street

Glasgow G2 6AT

T 0141 248 4774

F 0141 242 5665

E ceu@scotland.gov.uk

National Rescourse Centre for Ethnic Minority Health

NHS Health Scotland

Clifton House

Clifton Place

Glasgow G3 7LS

T 0141 300 1010

F 0141 300 1020

E nrcemh@health.scot.nhs.uk

W www.nrcemh.nhsscotland.com

Excel 2000

PUB TRA

1a North Street

Sheringham

Norfolk NR26 8LW

T 01263 825670

E excel2000@lineone.net

W www.excel2000.co.uk

Extend

TRA

Rose McFarlane

Area Development Officer for Scotland

33 Craiglockhart Road

Edinburgh EH14 1HH

T 0131 443 2619

W www.extend.org.uk

F

INFO

Feet for Life

The Society of Chiropodists and Podiatrists

1 Fellmongers Path

Tower Bridge Road

London SE1 3LY

T 020 7234 8620

W www.feetforlife.org

TRA

Fitness Industry Association

115 Eastbourne Mews

Paddington

London W2 6LQ

T 020 7298 6730

E info@fia.org.uk

W www.fia.org.uk

TRA

The Fitness League

Scottish representatives:

Mrs Fiona Gillanders

23 Carrick Road

Ayr KA7 2RD

W www.thefitnessleague.com

TRA

Fitness Scotland

Caledonia House

South Gyle

Edinburgh EH12 9DQ

T 0131 317 7243

E admin@fitness-scotland.com

W www.fitness-scotland.com

Foundation for Community Dance TRA

Cathedral Chambers

2 Peacock Lane

Leicester LE1 5PX

T 0116 251 0516

E info@communitydance.org.uk

W www.communitydance.org.uk

The Foundation is a national voice for community dance and works for the development of dance for all by acting as a catalyst for the development of partnerships between dance practitioners, funders and communities. The Foundation has a network of dancers, animateurs, artists and dance teachers and has published a community dance directory.

Freedom in Dance TRA

25 Hawk Green Road

Marple

Stockport SK6 7HU

T 0161 427 5093

E freedom@amans.fsnet.co.uk

G

Green Candle Dance Company TRA INFO

Unit 20.6

Aberdeen Studios

Aberdeen Centre

22 Highbury Grove

London N5 2EA

T 020 7359 8776

E info@greencandledance.com

W www.greencandledance.com

Greenspace Scotland

Suite 3, The Commercial Centre

Stirling Enterprise Park

Stirling FK7 7RP

T 01786 465934

W www.greenspacescotland.org.uk

H

Hassle Free Exercise

A booklet produced by NHS Health Scotland that aims to show how everyone can fit more physical activity into their everyday lives. Available from your local health education/promotion department.

Health Canada and the Canadian Council for Health and Active Living at Work

W www.activelivingatwork.com

Health Scotland Library

Health Scotland

The Priory

Canaan Lane

Edinburgh EH10 4SG

T 0845 912 5442

F 0131 536 5593/0131 536 5502

E library.enquiries@hebs.scot.nhs.uk

W www.hebs.com/library

PUB RES

HelpAge International

PO Box 32832

London N1 9ZN

T 020 7278 7778

E hai@helpage.org

W www.helpage.org

The website includes the Ageing and Development newsletter, which is a source for contacts, research, publications and events worldwide on the issues affecting older people.

PUB INFO

Help the Aged

207–221 Pentonville Road

London N1 9UZ

T 020 7278 1114

E info@helptheaged.org.uk

W www.helptheaged.org.uk

This website provides advice, information and support to help older people live independent lives, particularly those who are frail, isolated or poor. The Advice and info section covers a wide range of subjects from financial information through to health and care. Physical activity is included within some of these pages. Also included is information on how to become involved with Help the Aged activities.

PUB

Human Kinetics Europe

107 Bradford Road

Stanningley

Leeds LS28 6AT

T 0113 255 5665

E ukpe@hkeurope.com

W www.ukpe.humankinetics.com

Imperial Society of Teachers of Dancing

Imperial House

22–26 Paul Street

London EC2A 4QE

T 020 7377 1577

E admin@istd.org

W www.istd.org

Inclusive Fitness Initiative

Montgomery Leisure Services Ltd

The Estate Office

Thorncliffe Park Estate

Chapeltown

Sheffield S36 2PH

T 0114 257 2060

E info@inclusivefitness.org

W www.inclusivefitness.org

A partnership between the English Federation of Disability Sport and Montgomery Leisure to ensure that disabled and older people can access fitness equipment in a targeted number of local authority facilities, increasing opportunities for improving general levels of health, fitness and sports performance.

Institute for Outdoor Learning

The Barn

Plumpton Old Hall

Plumpton

Penrith

Cumbria CA11 9NP

T 01768 885800

E institute@outdoorlearning.org

W www.outdoor-learning.org

International Dance Teachers Association

International House

76 Bennett Road

Brighton

East Sussex BN2 5JL

T 01273 685652

E info@idta.co.uk

W www.idta.co.uk

International Longevity Centre UK

22–26 Albert Embankment

London SE1 7TJ

T 0207 735 7565

W www.ilcuk.org.uk

International Society for Aging and Physical Activity

W www.isapa.org

The website provides information about the society and also a downloadable copy of their newsletter with reference to the new American National Blueprint: Increasing Physical Activity Among Adults Aged 50 and Older. The site allows members to submit information about forthcoming meetings and active websites, and other information, on the appropriate regional page, and invites anyone with an interest in aging and physical activity to submit material for posting on the bulletin board, submit articles for the newsletter or contribute photographs and other images to the image gallery. Links to organisations such as universities are also encouraged and the site provides the opportunity for posting course outlines/syllabuses for undergraduate or graduate classes in physical activity and aging. The site provides 16 direct links to websites concerned with aging and physical activity, plus an additional 21 website addresses of organisations providing additional information. The direct links include two key documents in the field of ageing and physical activity, the ACSM Position Stand on Exercise and Physical Activity for Older Adults (www.acsm-msse.com) and the United States Surgeon General's Report on Physical Activity and Health (www.acsm-msse.com).

J

Jabadao Centre for Movement Studies

Branch House

18 Branch Road

Armley

Leeds LS12 3AQ

T 0113 231 0650

E info@jabadao.org

W www.jabadao.org

Jabadao provides training courses, conferences, special events and fieldwork projects that aim to develop understanding and scope of practice within health settings of all varieties. Its work centres on movement and dance and, in particular, on movement for people with dementia.

Jogscotland

9a South Gyle Crescent

South Gyle

Edinburgh EH12 9EB

Tel: 0131 539 7320

W www.jogscotland.org.uk

K

Keep Fit Association TRA INFO

Suite 1.05

Astra House

Arklow Road

London SE14 6EB

T 020 8692 9566

E info@keepfit.org.uk

W www.keepfit.org.uk

King's Fund PUB RES INFO

11–13 Cavendish Square

London W1G 0AN

T 020 7307 2400

W www.kingsfund.org.uk

L

Laban Guild for Movement and Dance TRA

34 Tower Road

Strawberry Hill

Twickenham

Middlesex TW1 4PE

T 01737 842834

E dance@labanguild.org

W www.labanguild.org

Later Life Training Ltd TRA

44 Egerton Gardens

London W13 8HQ

T 020 8998 7672

E htskelton@lineone.net

Learndirect

T 0800 015 0450

W www.learndirect.co.uk

TRA

Leicester College

(East Midlands Pennine Training)

St Margaret's Campus

Grafton Place

St John Street

Leicester LE1 3WL

T 0116 229 5512

TRA

Lifetime Health and Fitness

Broad Quay House

Prince Street

Bristol BS1 4DJ

T 0117 907 8200

E info@lifetimehf.co.uk

W www.lifetimehf.co.uk

Living Streets

Inglewood House

Tullibody Road

Alloa

FK10 2HU

E coordinator@livingstreetsscotland.org.uk

W www.livingstreetsscotland.org.uk

M

Maccabi GB

Prestige House

Station Road

Borehamwood

Herts WD6 3DF

T 020 8457 2333

E sport@maccabigb.org.uk

W www.maccabigb.org

Magic Me

118 Commercial Street

London E1 6NF

T 020 7375 0961

Margaret Morris Movement TRA

PO Box 1525

Helensburgh

Dunbartonshire G84 0AF

T 01436 810215

E info@margaretmorrismovement.com

W www.margaretmorrismovement.com

Maudesport EQU

Unit 23

Empire Close

Empire Industrial Park

Aldridge

West Midlands WS9 8UQ

T 01922 459571

E sales@maudesport.co.uk

W www.maudesport.com

Medau Society TRA

8b Robson House

East Street

Epsom

Surrey KT17 1HH

T 01372 729056

E medau@nascr.net

W www.medau.org.uk

Mental Health Foundation PUB RES INFO

7th Floor

83 Victoria Street

London SW1H 0HW

T 020 7802 0300

E mhf@mhf.org.uk

W www.mentalhealth.org.uk

Scotland Office:

T 0141 572 0125

INFO RES

MIND

15–19 Broadway

London E15 4BQ

T 020 8519 2122

E contact@mind.org.uk

W www.mind.org.uk

Movin' Aboot'

Margaret Palmer

c/o 2 Westhill Crescent

Westhill

Aberdeenshire AB32 6AA

N

TRA

National Association for Providers of Activities for Older People (NAPA)

Suite 211

24/28 Hatton Wall

London EC1N 8JH

T 020 7831 3320

W www.napa-web.co.uk

The website provides information on the wide range of training workshops that NAPA runs to support its work in setting standards of appropriate practice regarding the provision of activities in establishments that provide services or care for older people. The workshops cover topics such as arts and craft, drama, exercise and the arts. The website also contains details of books, booklets and articles available from NAPA, and details of the Community Fund project Growing with Age.

INFO

National Asthma Campaign

Providence House

Providence Place

London N1 0NT

T 020 7226 2260

W www.asthma.org.uk

National Asthma Campaign in Scotland

4 Queen Street

Edinburgh EH2 1JE

T 0131 226 2544

E scotland@asthma.org.uk

National Heart Forum

INFO PUB RES

Tavistock House South

Tavistock Square

London WC1H 9LG

T 020 7383 7638

E nhf-post@heartforum.org.uk

W www.heartforum.org.uk

A leading alliance of over 40 national organisations working to reduce the risk of coronary heart disease in the UK.

National Institute of Adult Continuing Education (NIACE)

INFO PUB

21 De Montfort Street

Leicester LE1 7GE

T 0116 204 4200

E enquiries@niace.org.uk

W www.niace.org.uk

NIACE is a non-governmental organisation committed to supporting an increase in the total number of adults engaged in informal and formal learning in England and Wales, and at the same time taking positive action to improve opportunities and widen access to learning opportunities to those communities under-represented in current provision.

National Orienteering Centre

Glenmore Lodge

Aviemore PH22 1QU

T/F 01479 861713

E nationalcentre@scottish-orienteering.org

W www.scottish-orienteering.org

National Osteoporosis Society

INFO PUB RES

Camerton

Bath BA2 OPJ

T 01761 471771 (for general enquiries)

Helpline 01761 472721 (for medical queries)

E info@nos.org.uk

W www.nos.org.uk

The National Osteoporosis Society (NOS) is the only national charity dedicated to osteoporosis. The website contains details about NOS and information on the management and prevention of osteoporosis, including physical activity. The home page refers to the NOS publications on physical activity and exercise. A section of the website is dedicated to professionals and includes information on free training days, special interest groups, publications and position statements from NOS. Contact details are also provided for the 100 local support groups nationwide.

PUB TRA

National Sports Medicine Institute

32 Devonshire Street

London W1G 6PX

T 020 7908 3636

W www.nsmi.org.uk

The website provides access to a variety of services offered through the National Sports Medicine Institute (NSMI) including the SMART database (a database of journal articles on sports medicine and related topics); courses available for doctors and physiotherapists; and publications and a library information service. It provides information on the Students in Sports care membership package that provides access to NSMI services at a subsidised rate. The website also provides details on RESCU, a comprehensive profiling system covering all the services provided by sport and exercise medicine and science practitioners.

EQU

Nottingham Rehab Supplies

Findel House

Excelsior Road

Ashby de la Zouch

Leicestershire LE65 1NG

T 0870 600 0197

E info@nrs-uk.co.uk

W www.nrs-uk.co.uk

O

Older People's Unit

Scottish Executive

Edinburgh EH1 3DG

T 0131 244 3022

W www.scotland.gov.uk/topics/

Openage Project

1 Thorpe Close

London W10 5XL

T 020 8964 1900

E Openage.project@btclick.com

W www.openage.co.uk

P

Parkinson's Disease Society

215 Vauxhall Bridge Road

London SW1V 1EJ

T 020 7931 8080

E enquiries@parkinsons.org.uk

W www.parkinsons.org.uk

The website provides details about Parkinson's disease and lists the services offered by the society, including details of the wide range of continuing professional education for health- and social-care professionals. The website also provides examples of topics contained within the publications of the society, including fact sheets, booklets, videos and audiotapes. These publications cover a range of subjects such as leisure and health issues, including information on exercise.

Parkinson's Disease Society Scottish Office

Forsyth House

Lomond Court

Castle Business Park

Stirling FK9 4TU

T/F 01786 433811

E pds.scotland@parkinsons.org.uk

Paths for All (including Paths to Health)

Inglewood House

Tullibody Road

Alloa FK10 2HU

T 01259 218855

E info@pathstohealth.org.uk

W www.pathsforall.org.uk

Performing Rights Society

29–33 Berners Street

London W1P 4AA

T 020 7580 5544

W www.prs.co.uk

The Performing Rights Society provides details of the licensing of the use of music in public places.

Physical Activity and the Prevention of Osteoporosis, Falls and Fractures (UK PAPOFF)

c/o Postgraduate Education Centre

Nottingham City Hospital NHS Trust

Hucknall Road

Nottingham NG5 1PB

T 0115 962 7758

EQU

Physical Company Ltd

2a Desborough Industrial Park

Desborough Park Road

High Wycombe

Buckinghamshire HP12 1PG

T 01494 769222

E sales@physicalcompany.co.uk

W www.physicalcompany.co.uk

PUB RES

Policy Research Institute for Ageing and Ethnicity (PRIAE)

31–32 Park Row

Leeds LS1 5JD

T 0113 285 5990

W www.priae.org

TRA

Positive Image Fitness Ltd

12 Sunderland Close

Rochester

Kent ME1 3AS

T 01634 403063

E posimfitness@btinternet.com

INFO

Pre-Retirement Association

9 Chesham Road

Guildford

Surrey GU1 3LS

T 01483 301170

E info@pra.uk.com

W www.pra.uk.com

R

Ramblers' Association Scotland

Kingfisher House

Auld Mart Business Park

Milnathort

Kinross KY13 9DA

T 01577 861222

F 01577 861333

E enquiries@scotland.ramblers.org.uk

W www.ramblers.org.uk/scotland

Register of Exercise Professionals

TRA

Charter House

29a London Road

Croydon CR0 2RE

T 020 8686 6464

E info@exerciseregister.org

W www.exerciseregister.org

Research into Ageing

INFO PUB RES

PO Box 32833

London N1 9ZQ

T 020 7843 1550

E ria@ageing.org

W www.ageing.org

The website provides information about the medical charity and its current research projects. It also has a publications section, which includes publications on exercise.

Royal College of General Practitioners

14 Princes Gate

Hyde Park

London SW7 1PU

T 020 7581 3232

E info@rcgp.org.uk

W www.rcgp.org.uk

Royal College of Physicians

11 St Andrews Place

Regent's Park

London NW1 4LE

T 020 7975 1174

W www.rcplondon.ac.uk

Royal National Institute for the Blind (RNIB)

INFO RES TRA

RNIB Scotland

Dunedin House

25 Ravelston Terrace

Edinburgh EH4 3TP

T 0131 311 8500

F 0131 311 8529

E rnibscotland@rnib.org.uk

W www.rnib.org.uk/xpedio/groups/public/documents/code/public_rnib003462.hcsp

The website provides information on the resources and services provided by the RNIB, including factsheets and advice on active recreation, exercise and fitness. The site includes a section on leisure, accessed through the Our services link on the home page. This provides information on a wide range of leisure pursuits and includes sections on reading, holidays and leisure, sports and hobbies. The leisure, sports and hobbies section also provides a link to a part of the website dedicated to recreation and lifestyles; this provides information and advice for visually impaired people on gardening and information on the Activate Gym Access project, a scheme to ensure that visually impaired people have the opportunity to access gyms and leisure centres. It also provides information on the Leisure Link project, which seeks to introduce older visually impaired people to a wide range of leisure activities, linking with local volunteers within their own communities.

Royal National Institute for the Deaf

Empire House

131 West Nile Street

Glasgow G1 2RX

F 0141 341 5330

E rnidscotland@rnid.org.uk

W www.rnid.org.uk

The website is split into six main sections, including services offered by the RNID, interactive, which provides an online discussion forum, and information. The information section contains details of an information line that is accessible to everyone, irrespective of their degree of hearing loss. It also provides details of the factsheets that are available and an online searchable directory of services. The recreation section provides details of organisations that provide a range of activities for people with disabilities, some of which are specific to people with hearing impairment.

Royal Scottish Country Dance Society

12 Coates Crescent

Edinburgh EH3 7AF

T 0131 225 3854

E info@rscdshq.co.uk

W www.rscds.org

Royal Society for the Prevention of Accidents (RoSPA)

Edgbaston Park

353 Bristol Road

Edgbaston

Birmingham B5 7ST

T 0121 248 2000

E help@rospa.co.uk

W www.rospa.co.uk

RoSPA offers a complete training service – from practical skills to management and professional qualifications, including the new NEBOSH National Diplomas. Scottish training takes place at the address opposite.

Livingstone House

43 Discovery Terrace

Heriot-Watt University Research Park

Edinburgh EH14 4AP

S

Scottish Athletics Ltd

9a South Gyle Crescent

Edinburgh EH12 9EB

T 0131 539 7320

W www.scottishathletics.org.uk

Scottish Bowling

50 Wellington Street

Glasgow G2 6EF

T/F 0141 221 8999

E scottishbowling@aol.com

Scotland Badminton

Cockburn Centre

40 Bogmoor Place

Glasgow G51 4TQ

T 0141 445 3982

W www.scotbadminton.demon.co.uk

Scottish Community Education Council

West Coates House

90 Haymarket Terrace

Edinburgh EH12 5LQ

T 0131 313 2488

National co-ordinating body for community education services in Scotland.

Scottish Council for Voluntary Organisations

Mansfield Traquair Centre

15 Mansfield Place

Edinburgh EH3 6BB

T 0131 556 3882

F 0131 556 0279

E enquiries@scvo.org.uk

National co-ordinating body for voluntary organisations in Scotland.

Scottish Dancesport

93 Hillfoot Drive

Bearsden

Glasgow G61 3QG

T 0141 563 2001

Scottish Disability Sport

The Administrator

Caledonia House, South Gyle

Edinburgh EH12 9DQ

T 0131 317 1130

F 0131 317 1075

E ssadsds2@aol.co

Scottish Executive departments

Details of Scottish Executive departments can be accessed from www.scottishexecutive.gov.uk/topics/

Topic information about the activities and responsibilities of the Scottish Executive is arranged under 21 topic headings and can be accessed from www.scottishexecutive.gov.uk/topics/

Scottish Executive Health Department

St Andrew's House

Regent Road

Edinburgh EH1 3DG

T 0131 556 8400

Enquiry line 08457 741741 (local call rate within UK)

Minicom 0131 244 1829 (service for the deaf)

F 0131 244 8240

E ceu@scotland.gov.uk

Scottish Gymnastics

2 Lint Riggs

Falkirk FK1 1DG

T 01324 886505

F 01324 886507

E info@scottishgymnastics.com

Scottish Natural Heritage

2 Anderson Place

Edinburgh EH6 5NP

T 0131 447 4784

F 0131 446 2405

W www.snh.org.uk

Scottish Pre-Retirement Council

Alexandra House

204 Bath Street

Glasgow G2 4HL

T 0141 332 9427

W www.charitiesdirect.com

Scottish Swimming

TRA

National Swimming Academy

University of Stirling

Stirling FK9 4LA

T 01786 466520

E info@scottishswimming.com

W www.scottishswimming.com

Scottish Table Tennis Association

Mr David Clifford

Chairman

Caledonia House

South Gyle

Edinburgh EH12 9DQ

T 0131 317 8077

W www.tabletennisscotland.com

Scottish Women's Bowling Association

Ms Anna Marshall

Secretary

Unit 76

STEP

John Player Building

Stirling FK7 7RP

Senior Studies Institute

Strathclyde University

40 George Street

Glasgow G1 1QE

T 0141 548 4828

F 0141 552 8126

W www.cll.strath.ac.uk

Skills Active Scotland

28 Castle Street

Edinburgh EH2 3HT

T 0131 226 6618

Speechmark (formerly Winslow Publishing)

Telford Road

Bicester

Oxfordshire OX6 0TS

T 01869 244644

E info@speechmark.net

W www.speeechmark.net

Sports Coach UK

114 Cardigan Road

Headingley

Leeds LS6 3BJ

T 0113 274 4802

E coaching@sportscoachuk.org

W www.sportscoachuk.org

Sport Scotland

Caledonia House

South Gyle

Edinburgh EH12 9DQ

T 0131 317 7200

E library@sportscotland.org.uk

W www.sportscotland.org.uk

Sport Scotland is Scotland's sports development agency, dealing with all aspects of Scottish sport from youth sport to Olympic success. The website gives an overview of the work of Sport Scotland, which is governed by Scotland's national strategy for sport, Sport 21, and includes all the latest issues, ideas, programmes, sports development, courses and events in Scottish sport. The Partners and links icon on the home page provides access to websites of organisations that work in partnership with Sport Scotland to achieve the aims of Sport 21. These are shown as individual directories for local authorities, governing bodies, local sports councils, sports

Sports Leaders UK

23–25 Linford Forum

Rockingham Drive

Linfood Wood

Milton Keynes MK14 6LY

T 01908 689180

W www.sportleaders.org

This organisation has replaced British Sports Trust who developed the Community Sports Leader Award.

Stroke Association

INFO PUB TRA

CHSS

65 North Castle Street

Edinburgh EH2 3LT

T 0845 077 6000

E adviceline@chss.org.uk

W www.chss.org.uk

The website gives information on the support services provided by the association and contact details for local information centres. It also provides information on current and past research projects, including projects on physical activity. The latest news from the association is also provided, including a link to Stroke Awareness week and other annual campaigns such as Let's Get Physical.

Sustrans Scotland

INFO

16a Randolph Crescent

Edinburgh EH3 7TT

T 0131 539 8122

E scotland@sustrans.org.uk

W www.sustrans.org.uk

T

Tai Chi Union

TRA

1 Littlemill Drive

Balmoral Gardens

Crookston

Glasgow G35 7GE

T 0141 810 3482

F 0141 810 3741

E secretary@taichiunion.com

W www.taichiunion.com

The website contains a search facility for t'ai chi instructors and local groups and classes and a forum for health and special needs, including specific training for those with medical conditions.

PUB

Third Age Press

6 Parkside Gardens

London SW19 5EY

T 020 8947 0401

W www.thirdagepress.co.uk

TRA

Thrive (formerly Horticultural Therapy)

The Geoffrey Udall Centre

Beech Hill

Reading RG7 2AT

T 0118 988 5688

E info@thrive.org.uk

W www.thrive.org.uk

TRA PUB

Touchdown Dance

42 Edge Street

Manchester M4 1HN

T 0161 278 1499

E touchdd@aol.com

W www.touchdowndance.co.uk

TriathlonScotland

W www.tri-scotland.org

U

University of Dundee

Dr Marion ET McMurdo

Senior Lecturer in Ageing and Health

Department of Medicine

University of Dundee

Ninewells Hospital and Medical School

Dundee DD1 9SY

The University of Dundee runs courses for people interested in starting exercise classes for older people.

University of the Third Age (U3A)

26 Harrison Street

London WC1H 8JG

T 020 7837 8838

E enquiries@u3a.org.uk

W www.U3A.org.uk

The website provides information on local U3A groups and details of U3A networks that exist for specific topic areas such as walking. It also provides news, details of publications and an online discussion forum.

TRA

UK Sport

40 Bernard Street

London WC1N 1ST

T 020 7211 5100

E info@uksport.gov.uk

W www.uksport.gov.uk

UK Tai Chi Association

PO Box 159

Bromley

Kent BR1 3XX

T 020 8289 5166

E info@taichi-europe.com

W www.taichi-europe.com

W

Well Scotland

National Programme Team

Scottish Executive

St Andrews House

Regent Road

Edinburgh EH1 3DG

T 0131 244 2551

E wellscotland@scotland.gsi.gov.uk

Working Backs Scotland

W www.workingbackssscotland.com

INT

World Health Organization

W www.who.int

The website has over 150 separate home pages, the most valuable being Ageing and Life Course and the Global Movement on Active Ageing.

Y

Yoga Scotland

E info@yogascotland.org.uk

W www.yogascotland.org.uk

YMCA Fitness Industry Training

TRA

112 Great Russell Street

London WC1B 3NQ

T 020 7343 1800

E theclub@centralymca.org.uk

W www.centralymca.org.uk

Further reading

This section provides sources of further reading relating to older adults and physical activity. It is divided into four main areas:

1. books and reports

2. information on exercise programming for older people

3. research papers

4. academic journals.

Books and reports

Active Living Among Older Adults – Health Benefits and Outcomes

By S O'Brien Cousins and T Horne.

Published by Brunner/Mazel, Philadelphia, PA, 1999.

Active Living Every Day

By SN Blair, AL Dunn, BH Marcus, RA Carpenter and P Jaret.

Published by Human Kinetics, Champaign, IL, 2001.

Active Older Adults – Ideas for Action

Edited by L Allen.

Published by Human Kinetics, Champaign, IL, 1999.

Aging, Physical Activity and Health

By RJ Shephard.

Published by Human Kinetics, Champaign, IL, 1997.

Alive and Kicking – The Carer's Guide to Exercises for Older People

By J Sobczak.

Published by Age Concern, London, 2001.

All Our Futures - The Report of the Better Government for Older People Programme

By C Hayden and A Boaz.

Published by Better Government for Older People, Centre for Local Government, Warwick University, Coventry, 2000.

A Blueprint for Action for Active Living and Older Adults

By the Active Living Coalition for Older Adults.

Published by Active Living Coalition for Older Adults, London, Ontario, 1998

Exercise for Older Adults

Edited by RT Cotton.

Published by Human Kinetics, Champaign, IL, 1998.

Exercise Referral Systems: A National Quality Assurance Framework

By the Department of Health.

Published by The Stationery Office, London, 2001.

Health and Fitness Over Fifty

By B O'Connor and C Wells.

Published by The Crowood Press, Marlborough, Wiltshire, 1999.

Health Survey for England: The Health of Minority Ethnic Groups 1999

By B Erens, P Primatesta and G Prior.

Published by The Stationery Office, London, 2001.

Health Survey for England 2000. The Health of Older People

By the Department of Health.

Published by The Stationery Office, London, 2001.

The Heidelberg Guidelines for Promoting Physical Activity among Older Persons

By the World Health Organization.

Published by the World Health Organization, Geneva, 1997.

Improving Health through Community Participation – Concepts to Commitment

Published by the Health Development Agency, London, 2000.

Increasing Physical Activity Among Adults Aged 50 and Older – A Blueprint

By the National Institute on Aging.

Published by the Robert Wood Johnson Foundation, Princeton, NJ, 2001.

Keep Fit for Life. Meeting the Nutritional Needs of Older Persons

By the World Health Organization.

Published by the World Health Organization, Geneva, 2002.

The Learning from 'All Our Futures', the Report of the Better Government for Older People Programme

By Better Government for Older People.

Published by the Local Government Centre, Warwick University, Coventry, 2000.

Mapping Learning Opportunities for Older People

By the National Institute for Adult and Continuing Education (NIACE).

Published by NIACE, Leicester, 1998.

National Service Framework for Older People

By the Department of Health.

Published by Department of Health, London, 2001.

Physical Activity 'At Our Age' – Qualitative Research among People Over the Age of 50

By H Finch.

Published by the Health Education Authority, London, 1997.

Physical Activity and Health: A Report of the US Surgeon General

By the US Department of Health and Human Services.

Published by the US Department of Health and Human Services Department, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Atlanta, GA, 1996.

Physical Activity from Our Point of View – Qualitative Research among South Asian and Black Communities

By DK Rai and H Finch.

Published by the Health Education Authority, London, 1997.

Physical Activity in Later Life – Further Analysis of the Allied Dunbar National Fitness Survey and the Health Education Authority Survey of Activity and Health

By DA Skelton, A Young, A Walker and E Hoinville.

Published by the Health Education Authority, London, 1999.

Physical Dimensions of Aging

By W Spirduso.

Published by Human Kinetics, Champaign, IL, 1995.

Promoting Physical Activity: a Guide for Community Action

By the US Department of Health and Human Services.

Published by Human Kinetics, Champaign, IL, 1999.

Information on exercise programming for older people

See also the key resources listed in Appendix 1 Physical activity guidelines for older people.

ABC of Sports Medicine

By M Harries, G Williams, G McLatchie and J King.

(See the section on Active in later life by A Young and S Dinan.)

Published by British Medical Journal Books, London, 2000.

Active For Life – the Falls Prevention Programme

Available from Classroom Multimedia Ltd, Bristol.

A falls prevention programme strategy for the primary care organisation or hospital on CD-ROM. Includes videos specifically produced to promote falls prevention and management among frail older people, an Active for Life – Falls Prevention booklet and posters for display in GP surgeries and hospital waiting rooms.

Active Living Every Day

By S Blair, A Dunn, B Marcus, RA Carpenter and P Jaret.

Published by Human Kinetics, Champaign, IL, 2001.

A self-paced programme that uses checklists and charts to encourage sedentary adults to adopt active living.

Active Older Adults – Ideas for Action

Edited by L Allen.

Published by Human Kinetics, Champaign, IL, 1999.

Activities Encyclopedia

By M Knoth.

Published by Winslow Press, Chesterfield, 1997.

A practical guide to a range of activities for residents in nursing homes.

Activity Planning at Your Fingertips

By M Knoth.

Published by Winslow Press, Chesterfield, 1997.

Provides ideas and directions for games and activities for residents in nursing homes.

Alive and Kicking. The Carer's Guide to Exercises for Older People

By J Sobczak

Published by Age Concern, London, 2001.

Advice and guidelines for carers on exercise programmes.

Develop an Activities Programme

By T Briscoe.

Published by Winslow Press, Chesterfield, 1991.

A practical guide for nurses working with older people.

Exercise for Healthy Ageing (2nd edition)

By D Skelton.

Published by Research into Ageing, London, 1999.

A programme of exercises specifically devised to help older people increase mobility, balance, strength and power.

Exercise Programming for Older Adults

By KA Van Norman.

Published by Human Kinetics, Champaign, IL, 1995.

Fitness for Life

By S Dinan and C Sharp.

Published by Piatkus, London, 1996.

The Heidelberg Guidelines for Promoting Physical Activity among Older Persons

By the World Health Organization.

Published by the World Health Organization, Geneva, 1997.

Increasing Physical Activity Among Adults Aged 50 and Older – A Blueprint

By the National Institute on Aging.

Published by Robert Wood Johnson Foundation, Princeton, NJ, 2001.

Guidelines on promoting physical activity among those aged 50 and over.

Meynell Games on Parachute Play

By F Meynell.

Published by Meynell Games Publications, Eastbourne, 1996.

A practical guide to the use of parachute games for programming with older people.

Recreation Programming and Activities – for Older Adults

By JE Elliot and JAS Sorg-Elliot.

Published by Venture Publishing, State College, PA, 1991.

A practical guide for recreation professionals for use in nursing homes, including activity programming and documentation.

Senior Fitness Test Manual

By R Rikli and J Jones.

Published by Human Kinetics, Champaign, IL, 2001.

Provides a series of easy to use tests to assess physical fitness in older people. The resource includes a video, software and handbook on field testing for older people.

Sport England 50+ and All To Play For. Sport England Guidelines for Leaders on the Safe Approach towards Physical Activity Sessions for Older People

By EJ Bassey and PH Fentem

and

A Manual for Organisers of Sport and Recreation for Older People

Published by Sport England, London.

Strength Training for Seniors

By WL Wescot and TR Baechle.

Published by Human Kinetics, Champaign, IL, 1999.

The Successful Activity Co-ordinator

By R Hurtley and J Wenborn.

Published by Age Concern, London, 2001.

A resource pack aimed at all those with a responsibility for providing activity and leisure opportunities for older people within residential and nursing care-home settings.

Research papers

The following research papers are related to physical activity and older people.

American College of Sports Medicine. Position stand: exercise and physical activity for older adults. *Medicine and Science in Sports and Exercise* 1998; 30: 992–1008.

Atienza AA. Home-based physical activity programmes for middle aged and older adults: Summary of empirical research. *Journal of Aging and Physical Activity* 2001; 9: S38–S58.

British Heart Foundation National Centre for Physical Activity and Health. *Benefits of Physical Activity on Psychological Well-being for Older Adults.* Health Fact Sheet 1. Loughborough: British Heart Foundation National Centre for Physical Activity and Health; 2001.

British Heart Foundation National Centre for Physical Activity and Health. *Physical Activity and the Prevention and Management of Falls Among Older Adults: A Review*. Health Fact Sheet 2. Loughborough: British Heart Foundation National Centre for Physical Activity and Health; 2002.

Browson RC, Gurney JG, Land G. Evidence based decision making in public health. *Journal of Public Health Management and Practice* 1999; 5: 86–97.

Eakin EG, Glasgow RE, Riley KM. Review of primary care-based physical activity intervention studies: Effectiveness and implications for practice and future research. *Journal of Family Practice* 2000; 49: 158–168.

Eakin EG. Promoting physical activity among middle-aged and older adults in health care settings. *Journal of Aging and Physical Activity* 2001; 9: S29–S37.

Fox KR. The influence of physical activity on mental well-being. *Public Health and Nutrition* 1999; 2(3A): 411–418.

Gardner MM, Robertson MC, Campbell AJ. Exercise in preventing falls and fall related injuries in older people: a review of randomised controlled trials. *British Journal of Sports Medicine* 2000; 34: 7–17.

King AC, Haskell WL, Young DR, Oka RK, Stefanick ML. Long term effects of varying intensities and formats of physical activity on participation rates, fitness, and lipoprotein in men and women aged 50-65 years. *Circulation* 1995; 91: 2596–2604.

King AC, Rejeski J, Buchner DM. Physical activity interventions targeting older adults – a critical review and recommendations. *American Journal of Preventative Medicine* 1998; 15: 316–333.

Robertson MC, Devlin N, Gardner MM, Campbell AJ. 1: Effectiveness and economic evaluation of a nurse delivered home exercise programme to prevent falls. Randomised controlled trial. *British Medical Journal* 2001; 322: 1–6.

Skelton DA, Young A, Greig CA, Malbut KE. Effects of resistance training on strength, power and selected functional abilities of women aged 75 and over. *Journal of the American Geriatrics Society* 1995; 43: 1081–1087.

Stewart AL, Mills KM, Sepsis PG, King AC, McLellan BY, Roitz K, Ritter PL. Evaluation of CHAMPS, a physical activity promotion program for older adults. *Annals of Behavioural Medicine* 1998; 19: 353–361.

Stewart AL. Community based physical activity programs for adults aged 50 and older. *Journal of Aging and Physical Activity* 2000; 9: S71–S91.

Academic journals

The following keywords will help when searching for appropriate articles in professional journals and publications: older adults, older people, elderly, exercise, physical activity, health.

Adapted Physical Activity Quarterly

www.humankinetics.com

Publisher: Human Kinetics

Age and Ageing

www.oup.co.uk/ageing

Age and Ageing is the journal of the British Geriatrics Society and the British Society for Research on Ageing.

Aging and Mental Health

www.carfax.co.uk

Publisher: Carfax Publishing

Provides a forum for those involved in examining the relationship between the ageing process and mental health.

Journal of Aging and Physical Activity

www.humankinetics.com/products/journals/

Publisher: Human Kinetics

This quarterly multidisciplinary journal examines the dynamic relationship between physical activity and the ageing process.

Journal of the American Geriatrics Society

www.blackwellscience.com/journals/geriatrics/index.html

Mechanisms of Ageing and Development

www.bsra.org.uk/

The official journal of the British Society for Research on Ageing.

Quality in Ageing

www.pavpub.com

Published in association with the British Association for Service to the Elderly.

Focuses on policy, practice and research. Promotes the development of good practice in health and social care for different population subgroups, specifically older adults.

Training

This training directory has been compiled as a result of a national search undertaken by the British Heart Foundation National Centre for Physical Activity and Health at Loughborough University, working in collaboration with the Exercise and Dance Initiative at the Central Council of Physical Recreation.

It is designed to help those people wanting to provide training opportunities for both volunteers and professionals, which will encourage the development of a range of opportunities for older people to be active in a variety of health, recreational and community settings.

It is recognised that many organisations, particularly sports governing bodies, work with people of all ages and would not exclude older people from their programmes. These organisations have not been listed in this directory but their contact details are given in the A to Z of useful organisations (see p.227).

Not all courses relate to the specific teaching and leading of physical activity with older people. Some organisations have been included because they provide information relating to specific needs such as arthritis or osteoporosis. Others are linked more specifically to the needs of professional groups.

All of the courses included in this directory are nationally accessible in that they are delivered by a national organisation or training provider. The information included has been submitted by the contributing organisations and was accurate at the time of going to press. More detailed information can be obtained from the websites or by contacting the organisation.

Directory headings

The following headings are used in the directory (pp. 270–280):

- Training area and type: provides a brief description of the training course and potential participants.
- Activity area: denotes which area or areas of the Active for Later Life framework the training is most likely to apply to: Making Activity Choices, Increasing the Circle of Life or Moving in the Later Years (see Section 5). FC indicates courses that are specifically designed to improve the functional capacity and independence of the older person.
- Other information: includes the length of the course.
- Internal and external verification: describes how quality is assured through the use of internal and/or external verification or accreditation.
- Linked to S/NVQ framework: indicates the relationship with the Scottish National Vocational Qualifications framework. This is a constantly changing picture.

Many courses are under review and are updated from time to time. If you are considering using one of these programmes, contact the training providers for more detailed information and, in particular, to clarify:

- whether the course is available locally
- whether there are any pre-course qualifications or requirements, e.g. appropriate experience and expertise
- whether related theory and practice of ageing and physical activity, the body's response to exercise, and effective communication with older people are included
- the practical applications, i.e. the practice and assessment of programming, teaching and instruction
- whether the course has been designed using evidence-based practice linked to specific health and functional needs
- quality assurance (through internal and external verification)
- alignment to the S/NVQ framework (as this is a constantly changing picture)
- the status of national validation (links to academic and/or the S/NVQ framework as appropriate).

Training provider	Training area and type	Activity area	Other information	Impact of physical activity on older people included	Internal and external verification	Linked to S/NVQ framework
Alzheimer's Society Gordon House, 10 Greencoat Place, London SW1P IPH **T** 020 7306 0606 **E** enquiries@alzheimers.org.uk **W** www.alzheimers.org.uk	Offers dementia care training courses for staff to train others who are involved in providing care to people with dementia	ICL MLY	Also offers a video-based training course. Each tape is 70 minutes	No	No	No
Amateur Swimming Association Harold Fern House, Derby Square, Loughborough LE11 5AL **T** 01509 618700 **E** customerservices@swimming.org **W** www.britishswimming.org	Training for instructors in Master's Swimming, Aquafit and swimming lessons	MAC		Yes	Yes	Yes Teaching Swimming – S/NVQ Level 2 Aquafit – S/NVQ Level 2 Master's Swimming – CPD Module
American College of Sports Medicine ACSM courses are provided by: HFI Training 3 Thorne Passage, London SW13 OPA **T** 020 8876 2005 **E** courses@hfitraining.co.uk **W** www.hfitraining.co.uk	ACSM Health and Fitness Certification Programme Certificate of enhanced qualification – Exercise Prescription for Older Populations	MAC ICL	Part-time home study, workshops and distance learning	Yes	Yes	Yes Coach Part 1 – S/NVQ Level 2 Coach Part 2 – S/NVQ Level 3
Aquafusion Training is provided by: Northern Fitness Training 9A Cleasby Road, Menston, Nr Ilkley, West Yorkshire LS29 6JE **T** 01943 879816 **E** info@northernfitness.co.uk **W** www.aqua-fusion.co.uk	Full range of aquafusion including Aqua for Seniors, for aqua qualified instructors only	MAC	Two-day course and distance learning	Yes	Yes	Yes Coach Part 1 – S/NVQ Level 2 Coach Part 2 – S/NVQ Level 3
Arthritis Care 18 Stephenson Way, London NW1 2HD **T** 020 7380 6500 **W** www.arthritiscare.org.uk	A programme of self-management training courses for people with arthritis to assist the move from dependence to independence	MAC ICL	Based on peer training with people with arthriitis	Yes	N/A	No

Training provider	Training area and type	Activity area	Other information	Impact of physical activity on older people included	Internal and external verification	Linked to S/NVQ framework
British Association for Cardiac Rehabilitation PO Box 355, Farnham, Surrey GU9 7WB **T** 01252 720640 **W** www.bcs.com/bacr/	Training for exercise and phase 4 cardiac rehabilitation	MAC ICL	Appropriate for phase 4 cardiac rehabilitation	Yes	Yes	Post Level 3 S/NVQ
British Horse Society Stoneleigh Deer Park, Kenilworth, Warwickshire CV8 2XZ **T** 08701 202244 **E** enquiry@bhs.org.uk **W** www.bhs.org.uk	Training provided for those working with older people	MAC	The Higher Award has a specific module for working with older people	No	Yes	Yes
British Sports Trust Clyde House, 10 Milburn Avenue, Oldbrook, Milton Keynes MK6 2WA **T** 01908 689180 **W** www.bst.org.uk	Community Sports Leader Awards. Designed to train community sport leaders. These awards are appropriate for working with older people. Includes the British Expedition Leaders Award	MAC ICL	N/A	Yes	Yes	Yes
British Surfing Association Champions Yard, Penzance, Cornwall TR18 2TA **T** 01736 360250 **W** www.britsurf.co.uk	British Surf Association Coach Accreditation Scheme	MAC	N/A	Yes	No	Yes
British Tai Chi Chuan Centre PO Box 6404, London E18 1EX **T** 020 8502 9307 **E** jdiatcc@taichiwl.demon.co.uk **W** www.taichiwl.demon.co.uk	Courses for qualified t'ai chi teachers to work with older people	MAC	Workshops 1-4 days 3-5 week residencies International summer school	N/A	N/A	N/A
Candoco 2T Leroy House, 436 Essex Road, London N1 3QP **T** 020 7704 6845 **E** info@candoco.co.uk **W** www.candoco.co.uk	Dance as an integrated medium for disabled and non-disabled students	MAC ICL MLY	Appropriate for sessions held in day centres and residential homes	Yes	N/A	N/A

Training provider	Training area and type	Activity area	Other information	Impact of physical activity on older people included	Internal and external verification	Linked to S/NVQ framework
Dance East Northgate Arts Centre, Sidegate Lane West, Ipswich, Suffolk IP4 3DF **T** 01473 639230 **E** info@danceeast.co.uk **W** www.danceeast.co.uk	Offers professional development training days for dance practitioners for movement and dance	MAC ICL MLY	Appropriate for sessions held in day centres and residential homes	Yes	N/A	N/A
Dance 4 Pre-set, 3-9 Hockley, Nottingham NG1 1FH **T** 0115 941 0773 **E** info@dance4.co.uk **W** www.dance4.co.uk	Courses for dance leaders and choreographers in leading dance with older people, and people with learning and physical disabilities	MAC ICL	Appropriate for sessions held in day centres and residential homes	Yes	N/A	N/A
Disabled Living Foundation 380-384 Harrow Road, London W9 2HU **T** 020 7289 6111 **E** info@dlf.org.uk **W** www.dlf.org.uk	Offers training for healthcare and social services staff in falls prevention for older people and disabled people	ICL MLY	Also provides courses in general moving and handling, stroke and Parkinson's disease	N/A	N/A	No
Excel 2000 1a North Street, Sheringham, Norfolk NR26 8LW **T** 01263 825670 **E** excel2000@lineone.net **W** www.excel2000.co.uk	Courses for Excel 2000 instructors Workshops for carers and their dependents Courses for carers and professionals in hospital, residential and care settings **FC**	ICL MLY	48-hour course for Excel 2000 instructors. Shorter courses also available for carers and professionals in hospital, residential and care settings	Yes	Yes	S/NVQ Level 3 Open College Network
Extend 22 Maltings Drive, Wheathampstead, Herts AL4 8QJ **T** 01582 832760 **E** admin@extend.org.uk **W** www.extend.org.uk	The Extend Diploma in Movement to Music **FC**	ICL MLY	12 days (100 hours including contact time). For those working with over-60s, and disabled people of all ages	Yes	No	Currently being aligned to S/NVQ Level 3

Training provider	Training area and type	Activity area	Other information	Impact of physical activity on older people included	Internal and external verification	Linked to S/NVQ framework
Fitness League 52 London Street, Chertsey, Surrey KT16 8AJ **T** 01932 564567 **E** thefitnessleague@cwcom.net **W** www.thefitnessleague.com	Two-stage teacher training diploma courses which include specific modules for working with older people **FC**	MAC ICL	Training to run Fitness League classes lasts eight weekends	Yes	Yes	Working towards S/NVQ Level 3
Fitness Northern Ireland 147 Holywood Road, Belfast, Co Antrim BT4 3BE **T** 02890 704080 **E** fitnessni@aol.com	Exercise for the Older Adult (50+) **FC**	MAC	28 hours	Yes	Yes	S/NVQ Level 2
Fitness Scotland Caledonia House, South Gyle, Edinburgh EH12 9DQ **T** 0131 317 7243 **E** admin@fitness-scotland.com **W** www.fitness-scotland.com	Fitness Scotland Teachers Certificate in Fitness Activity for the Older Adult	MAC ICL	28 hours	Yes	Yes	SVQ Level 2
Fitness Wales 1b Clarke Street, Ely Bridge, Cardiff CF5 5AL **T** 02920 575155 **E** enquiries@fitnesswales.co.uk **W** www.fitnesswales.co.uk	Exercise for the Older Adult (50+) **FC**	MAC ICL	2½ day workshop	Yes	Yes	S/NVQ Level 2
Foundation for Community Dance Cathedral Chambers, 2 Peacock Lane, Leicester LE1 5PX **T** 0116 251 0516 **E** info@communitydance.org.uk **W** www.communitydance.org.uk	Provides a range of training courses for dance teachers	MAC ICL	Also provides courses on 'A Dancer's Duty of Care, within the Developing Professional Standards initiative	N/A	N/A	No
Freedom in Dance 25 Hawk Green Road, Marple, Stockport SK6 7HU **T** 0161 427 5093 **E** freedom@amans.fsnet.co.uk	Leading Dance with Older People training course	MAC ICL	Nine credits at level 3 Open College Network 1-2 day introductory courses also available	Yes	Yes	Yes. Level 3 S/NVQ equivalent

Training provider	Training area and type	Activity area	Other information	Impact of physical activity on older people included	Internal and external verification	Linked to S/NVQ framework
Freedom in Dance 25 Hawk Green Road, Marple, Stockport SK6 7HU **T** 0161 427 5093 **E** freedom@amans.fsnet.co.uk	Courses for dance workers and care workers leading dance for older people	MAC ICL	Courses last 1–2 days, of seven weekends	Yes	Yes	Yes. Level 3 S/NVQ equivalent
Green Candle Dance Company Unit 20.6, Aberdeen Studios, Aberdeen Centre, 22 Highbury Grove, London N5 2EA **T** 020 7359 8776 **E** info@greencandledance.com **W** www.greencandledance.com	Activate training programme	MAC ICL	Courses last 1–2 days, or seven weekends	Yes	Yes	Accredited through the NCVA (National Council of Vocational Awards, the Irish equivalent of S/NVQ
Health Promotion Agency for Northern Ireland 18 Ormeau Avenue, Belfast BT2 8HS **T** 02890 311611 **E** info@hpani.org.uk **W** www.hpani.org.uk	Activate training programme	MAC ICL	Covers a range of topics including exercise	Yes	Yes	No
Institute of Leisure and Amenity Management ILAM House, Lower Basildon, Reading RG8 9NE **T** 01491 874 800 **E** info@ilam.co.uk **W** www.ilam.co.uk	Courses for leisure centre programmers to alert managers to the needs of older people and to implement appropriate marketing and programming	MAC	N/A	N/A	No	No
International Dance Teachers Association International House, 76 Bennett Road, Brighton, East Sussex BN5 5JL **T** 01273 685652 **E** info@idta.co.uk **W** www.idta.co.uk	Training for providing Fireside Fitness and mobility programmes (chair-based mobility)	ICL	N/A	Yes	Yes	No

Training provider	Training area and type	Activity area	Other information	Impact of physical activity on older people included	Internal and external verification	Linked to S/NVQ framework
International Dance Teachers Association International House, 76 Bennett Road, Brighton, East Sussex BN5 5JL **T** 01273 685652 **E** info@idta.co.uk **W** www.idta.co.uk	Offers training to develop understanding of practice within health settings of all varieties including courses on dance for older people including those with dementia	MAC ICL	N/A	Yes	Yes	No
Jabadao Branch House, 18 Branch Road, Armley, Leeds LS12 3AQ **T** 0113 231 0650 **E** info@jabadao.org **W** www.jabadao.org	KFA Mature Mover Module and KFA Mature Mover Seated Exercise Module. **FC**	MAC ICL	Provide a rolling programme of courses in A Dancer's Duty of Care' which includes Safe Practice in Frail Elderly Settings	Yes	N/A	N/A
Keep Fit Association Astra House, Suite 1.05, Arklow Road, London SE14 6EB **T** 020 8692 9566 **E** info@keepfit.org.uk **W** www.keepfit.org.uk	Dance Foundation course for beginners Community Dance Teacher's Certificate Stage 1 Community Dance Teacher's Certificate Stage 2	MAC ICL	KFA Mature Mover Module: 60 hours KFA mature mover Seated Exercise module: 60 hours	Yes	Yes	S/NVQ Level 3 for Mature Mover Courses
Laban Guild for Movement and Dance 34 Tower Road, Strawberry Hill, Twickenham, Middlesex TW1 4PE **T** 01737 842834 **E** dance@labanguild.org **W** www.labanguild.org	Postural stability for older people, for experienced exercise teachers and physiotherapists	MAC ICL	Courses of varying length, from 30-100 hours	Yes	Yes	Open College Network
Later Life Training Ltd 44 Egerton Gardens London W13 8HQ **T** 020 8998 7672 **E** htskelton@lineone.net	Postural stability for older people, for experienced exercise teachers and physiotherapists	MAC ICL MLY	6 days + study day. Appropriate for falls prevention, management and rehabilitation	Yes	Yes	Post S/NVQ Level 3

Training provider	Training area and type	Activity area	Other information	Impact of physical activity on older people included	Internal and external verification	Linked to S/NVQ framework
Later Life Training Ltd (cont'd)	Senior Peer Mentoring. Physical Activity Motivator.	MAC ICL	A day course for mentors who work with older people. Training is also provided for professionals who wish to plan and implement mentoring programmes	Yes	No	No
Leicester College St Margaret's Campus, Grafton Place, St John Street, Leicester LE1 3WL **T** 0116 229 5512 **E** info@leicestercollege.ac.uk **W** www.leicestercollege.ac.uk	Chair-based Exercise Leadership for Frailer Older People, for health and care professionals **FC**	ICL MLY	32-hour course (4 days and contact hours)	Yes	Yes	No, to S/NVQs in Care
Lifetime Health and Fitness Broad Quay House, Prince Street, Bristol BS1 4DJ **T** 0117 907 8200 **E** info@lifetimehf.co.uk **W** www.lifetimehf.co.uk	Seniors' Fitness **FC**	MAC	Also provide the Advanced Fitness Instructor qualification	Yes	Yes	Yes
Margaret Morris Movement PO Box 1525, Helensburgh, Dunbartonshire G84 0AF **T** 01436 810215 **E** info@margaretmorrismovement.com **W** www.margaretmorrismovement.com	Teaching certificate in movement and dance	MAC ICL MLY	N/A	Yes	Yes	N/A
Medau Society 8b Robson House, East Street, Epsom, Surrey KT17 IHH **T** 01372 729056 **E** medau@nascr.net **W** www.medau.org.uk	Teacher training in the Medau Movement **FC**	MAC ICL	Local programmes include Chairobics, Mature Movers, Active 55+, 50+ dass, 60+ class, classes for older people and relaxation classes	Yes	Yes	City and Guilds 7307

Training provider	Training area and type	Activity area	Other information	Impact of physical activity on older people included	Internal and external verification	Linked to S/NVQ framework
National Association for Providers of Activities for Older People Suite 211, 24/28 Hatton Wall, London EC1N 8JH **T** 020 7387 5704 **W** www.napa-web.co.uk	Progression Award City and Guilds 6977, a training course designed for those who work in care homes and residential settings. Includes: music, movement and fun, effective activity programmes, using drama, and dementia care	ICL MLY	Other courses and sharing days based on specific topics designed to meet local needs	N/A	N/A	Similar to S/NVQ Level 3
National Orienteering Centre Glenmore Lodge, Aviemore PH22 1QU **T** 01479 861713 **F** 01479 861713 **E** nationalocentre@scottish-orienteering.org **W** www.scottish-orienteering.org/	General coaching training that covers all age groups, including orienteering courses for older people	MAC	N/A	No	Yes	Yes. Level 2 is gateway to S/NVQ Level 2
National Osteoporosis Society Camerton, Bath BA2 OPJ **T** 01761 471771 **E** info@nos.org.uk **W** www.nos.org.uk	Training for professionals, specific to exercise	MAC ICL	N/A	No	No	No
Paths For All (including Paths to Health) Inglewood House Tullibody Road, Alloa FK10 2HU **T** 01259 **E** info@pathstohealth.org.uk **W** www.pathsforall.org.uk	One day Walk Leader course and two day Scheme Initiator course.	MAC	7 hours 2-day training also provided for walk programme organisers	No	No	No

Training provider	Training area and type	Activity area	Other information	Impact of physical activity on older people included	Internal and external verification	Linked to S/NVQ framework
Positive Image Fitness Ltd 12 Sunderland Close, Rochester, Kent ME1 3AS **T** 01634 403063 **E** posimfitness@btinternet.com	Training for gym instructors on working with older people and phase 4 cardiac rehabilitation **FC**	MAC ICL		Yes	Yes	Yes
Premier Training and Development Parade House, 70 Fore Street, Trowbridge, Wiltshire BA14 8HQ **T** 01225 353555 **E** enquiries@premiertd.co.uk	Exercise and Health Training for Seniors, and for GP referral schemes **FC**	MAC	Also offer other qualifications in exercise and health through regional venues	Yes	Yes	Yes
Ramblers' Association Scotland Mr Dave Morris, Scottish Officer, Kingfisher House, Auld Mart Business Park, Milnathort, Kinross KY13 **T** 01577 861222 **F** 01577 861333 **W** www.ramblers.org.uk/scotland/scot.html	Offers local training for walk leaders and ramblers	MAC	Provide 48 walking groups acrosss Scotland	Yes	Yes	No
Royal National Institute for the Blind 105 Judd Street, London WC1H 9NE **T** 020 7388 1266 **E** cservices@rnib.org.uk **W** www.rnib.org.uk (contains Scottish link)	Provides training courses and conferences for those working with people who are visually impaired. There is an RNIB Certificate/Diploma in multiple disability	MAC ICL	Leisure Link scheme developed for leisure 'buddying' for people with visual impairment	No	No	No
Royal Scottish Country Dance Society 12 Coates Crescent, Edinburgh EH3 7AF **T** 0131 225 3854 **E** info@rscdshq.co.uk **W** www.rscds.org	Offers two part course: Preliminary Test and Teachers Certificate	MAC ICL	N/A	N/A	Yes	No

Training provider	Training area and type	Activity area	Other information	Impact of physical activity on older people included	Internal and external verification	Linked to S/NVQ framework
Scotland Badminton Cockburn Centre, 40 Bogmoor Place, Glasgow G51 4TQ **T** 0141 445 3982 **W** www.scotbadminton.demon.co.uk	ASA Assistant Teacher and ASA Teacher	MAC	N/A	No	Yes	Yes
Scottish Gymnastics 2 Lint Riggs, Falkirk FK1 1DG **T** 01324 886505 **F** 01324 886507 **E** info@scottishgymnastics.com **W** www.scottishswimming.com	Coaching qualifications cover teaching adult gymnastics	MAC	N/A	Yes	Yes	Yes
Scottish Swimming National Swimming Academy University of Stirling, Stirling FK9 4LA **T** 01786 466520 **E** info@scottishswimming.com **W**	Training for people to learn how to coach and instruct people to play badminton. (Covers all ages)	MAC ICL	Appropriate for tteaching swimming with older people	Yes	Yes	Yes
Scottish Table Tennis Association Mr David Clifford (Chairman), Caledonia House, South Gyle, Edinburgh EH12 9DQ **T** 0131 317 8077 **W** www.tabletennisscotland.com	Courses for coaches and leaders in local clubs and league structures	MAC ICL	Appropriate for veterans' table tennis groups and leagues	No	Yes	No
Stroke Association Stroke House, Whitecross Street, London EC1Y 8JJ **T** 020 7566 0300 **E** info@stroke.org.uk **W** www.stroke.org.uk	A programme of education and training for people affected by stroke	MAC ICL MLY	One-day intensive course covering six modules, or a modular training package for those who have suffered a stroke	No	Yes	Levels 2 and 3

Training provider	Training area and type	Activity area	Other information	Impact of physical activity on older people included	Internal and external verification	Linked to S/NVQ framework
Tai Chi Union for GB 1 Littlemill Drive, Balmoral Gardens, Crookston, Glasgow G35 7GE **T** 0141 810 3482 **E** secretary@taichiunion.com **W** www.taichiunion.com	Training in teaching t'ai chi	MAC ICL	Have courses for teaching t'ai chi to those with medical conditions	N/A	N/A	N/A
Thrive Geoffrey Udall Centre, Beech Hill, Reading RG7 2AT **T** 01189 885688 **E** info@thrive.org.uk **W** www.carryongardening.org.uk	Offers a 33-week diploma in Horticultural Therapy. A range of additional courses in horticultural therapy and gardening for disabled and older people are also available	MAC ICL	N/A	No	No	No
Touchdown Dance 42 Edge Street, Manchester M4 1HN **T** 0161 278 1499 **E** touchdd@aol.com **W** www.touchdowndance.co.uk	Training for those working with older and disabled people	MAC ICL	Provides a variety of different courses	Yes	No	No
UK Tai Chi Association PO Box 159, Bromley, Kent BR1 3XX **T** 020 8289 5166 **E** info@taichi-europe.com **W** www.taichi-europe.com	Training for those wanting to teach t'ai chi	MAC ICL	N/A	N/A	N/A	N/A
Yoga Scotland **E** info@yogascotland.org.uk **W** www.yogascotland.org.uk/index.html	Teacher training courses	MAC ICL	N/A	Yes	Yes	N/A
YMCA Fitness Industry Training 112 Great Russell Street, London WC1B 3NQ **T** 020 7343 1800 **E** theclub@centralymca.org.uk **W** www.centralymca.org.uk	Training courses available through Central YMCA Fitness Industry Training Exercise for the older person for qualified exercise and fitness professionals **FC**	MAC ICL	60-hour course (5 days and contact hours). Includes exercise to music, fitness training and cardiovascular training	Yes	Yes	Yes S/NVQ Level 3

Presentations

There are two Active for Later Life presentations that are designed to complement the information in the Active for Later Life resource:

- Making the case for physical activity and older people is a summary of the evidence and the implications for practice that are contained in Sections 1 and 2 of the Active for Later Life resource.
- Physical activity and the prevention of falls among older people specifically relates to the evidence and implications for practice contained in section 6 of the Active for Later Life resource.

Using the presentations

The presentations have been compiled using Microsoft PowerPoint. Each presentation is organised into sections, and additional notes are provided for each slide to assist the presenter. Copies of the presentations and notes can be provided for audiences. A separate list of references for each presentation is given on the CD-ROM as a Word document.

To meet the needs of potentially different audiences you may wish to customise your presentations by selecting slides from the different sections. For example, when using the 'Making the case for physical activity and older people' presentation, if you wish to establish the overall importance of physical activity for older adults with key professional groups you might use a selection of slides from Sections 1, 2 and 3. However, if this evidence is less important for your audience it might be more appropriate to choose slides from Sections 4, 5 and 6, which deal with what can be done to help older people become more active.

If you are using the 'Physical activity and the prevention of falls among older people' presentation you may also wish to use some additional slides from the 'Making the case for physical activity and older people' presentation, for example the slides on levels of physical activity and functional capacity among older adults and the barriers to physical activity.

Presentation 1

Making the case for physical activity and older people

This presentation provides an overview of the evidence presented in the Active for Later Life resource. It includes summaries of the following topic areas:

1. What do we mean by 'older people'?
- Working definitions of older people in relation to physical activity.
- Further information relating to this topic can be found in Section 1 of the Active for Later Life resource.

2. The benefits of physical activity for older people.
- Further information relating to this topic can be found in Section 1 of the Active for Later Life resource.

3. How active are older people?
- Levels of physical activity, fitness and functional capacity
- Further information relating to this topic can be found in Section 1 of the Active for Later Life resource.

4. How active should older people be?
- Current recommendations.
- Further information relating to this topic can be found in Section 1 and the appendices.

5. Can we help to change matters?
- Evidence of successful interventions and programmes.
- Further information relating to this topic can be found in Section 2 of the Active for Later Life resource.

6. What helps older people to become active?
- Summaries of studies of older people's views.
- Further information relating to this topic can be found in Section 2 and Working paper 2 of the Active for Later Life resource.

7. Older adults and physical activity – strategic connections.
- An outline of how the promotion of physical activity with older adults is connected to a range of health and other policy frameworks.
- Further information relating to this topic can be found in section 2 of the Active for Later Life resource.

Presentation 2

Physical activity and the prevention of falls among older people

This presentation specifically relates to the evidence and implications for practice contained in section 6 of the Active for Later Life resource. It includes summaries of the following topic areas:

1. Why are falls important?
- A summary of the impact of falls upon older adults and services.

2. Physical activity in falls prevention. Does it work? What is the evidence for effectiveness?
- A summary of evidence that indicates how physical activity can be part of evidence-based practice within falls prevention programmes.

3. How active are older people?
- A summary of levels of physical activity and the specific evidence relating to the role of physical activity in the prevention and management of falls.

4. Putting it into practice: recommendations and guidelines.
- A summary of recommendations and guidelines that should underpin interventions and programmes.

5. Putting it into practice: education and training.
- A summary of the role of appropriate training for those involved in developing local programmes including exercise.

BHF National Centre
physical activity+health

healthyliving

NHS
Health
Scotland

2490 06/2007