



BHF National Centre
physical activity+health



Guidelines for the promotion of physical activity with older people

BEATING HEART DISEASE TOGETHER

Contents

| | | |
|-----------|---|----|
| | Introduction | 3 |
| SECTION 1 | Physical activity and older people – the benefits | 4 |
| SECTION 2 | How much physical activity should older people be doing? | 9 |
| SECTION 3 | Promoting physical activity with older people | 19 |
| 3.1 | Population wide interventions – recommendations for practice | 20 |
| 3.2 | Guidance on community or locality-based interventions | 29 |
| 3.3 | Guidelines on one-to-one intervention design | 35 |
| 3.4 | Guidance on exercise and physical activity programme planning | 41 |
| SECTION 4 | Supporting materials and further information | 44 |

Guidelines for the promotion of physical activity with older people.

Introduction

A wealth of new evidence has become available which further strengthens the case for the promotion of physical activity for health with older people. Moreover, recent changes in health and social care policy have served to highlight the potential of physical activity to contribute towards improvements in independent living, quality of life for older people and the concept of active ageing.

The exercise sciences have provided us with greater insight into our understanding of the benefits of physical activity for the older person. Further research highlights increasing evidence of effective interventions. Consequently, there is a need to communicate such additional learning to health professionals and other stakeholders, so that this information can be used to underpin future work with evidence-based recommendations for practice.

These guidelines have been drafted with the purpose of highlighting:

- Current guidance on appropriate physical activity recommendations for the older person
- Guidance on translating evidence on promoting physical activity with older people into practice

These guidelines have been developed to assist professionals in the development of safe, effective and accessible programmes of physical activity for older people. They include:

Section 1. Physical activity and older people – the benefits

Section 2. How much physical activity should older people be doing?

Section 3. Promoting physical activity with older people

NB. Bracketed figures, e.g. (2,4,5), relate to references at the end of each section.

SECTION 1

PHYSICAL ACTIVITY AND OLDER PEOPLE – THE BENEFITS

A summary of :

- the benefits of physical activity for older people
- the consequences of inactivity.

SECTION 1 Physical activity and older people – the benefits

A substantial and compelling body of scientific evidence indicates that regular physical activity can bring significant health benefits to people of all ages and abilities. While the benefits of physical activity for younger and middle aged people receive a significant amount of public and media exposure, less emphasis is placed on the fact that the need for physical activity does not end with later life. Scientific evidence increasingly indicates that in addition to those health benefits e.g. the prevention of cardiovascular disease, type 2 diabetes and obesity extending into the later years, physical activity also can extend years of independent living, reduce disability and improve the quality of life for older people (1,2,3,4,5,6). In particular:

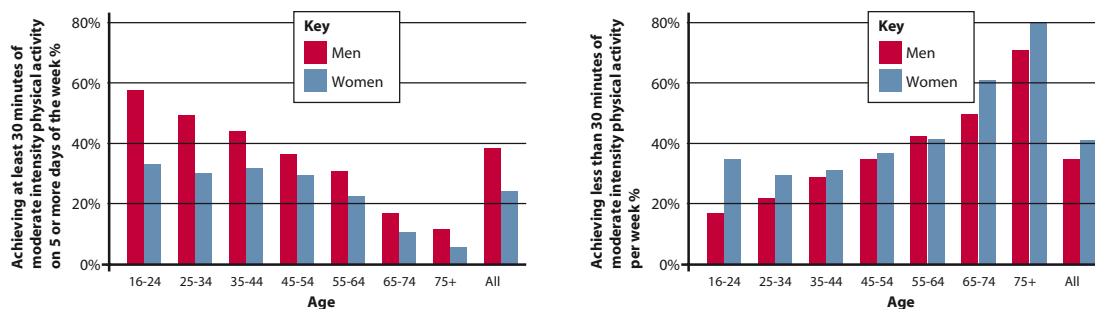
- Regular lifestyle activity is particularly important for older people for the maintenance of mobility and independent living.
- Strength-training exercises can improve muscle strength, which is important for tasks of daily living such as walking or getting up from a chair.
- Physical activity, and particularly training to improve strength, balance and coordination has also been found to be highly effective in reducing the incidence of falls.
- Physical activity can help improve the emotional and mental wellbeing of older people. It is associated with reduced risk of developing depressive symptoms and can be effective in treating depression and enhancing mood.
- Physical activity may improve at least some aspects of cognitive function which are important to tasks of daily living. It is also associated with reduced risk of developing problems of cognitive impairment in old age. (3)

Physical activity, independence, wellbeing and Active Ageing

More recently, public policy has highlighted the importance of promoting wellbeing, physical function, independence and mobility in the later years, enabling the older person to continue enjoying activities of daily living and maintain their social networks. Physical activity has significant potential to impact upon the quality of life of all older people, but this will require the support of a wide range of health and social care agencies who, hitherto, have not seen physical activity as a priority. Active Ageing is described as “Living life to the fullest extent, for as long as possible. Physical and mental health, mobility, hope, family and friends support an active ageing lifestyle”. (7)

Older people and inactivity – the consequences

Although regular physical activity has been demonstrated to be critical for the promotion of health and function as people age, people over the age of 50 represent the most sedentary segment of the adult population. This is particularly the case for people aged 75 and above.



(The Information Centre (2006) Statistics on Obesity, Physical Activity and Diet: England. The Information Centre, London.) (8)

SECTION 1 Physical activity and older people – the benefits

Inactivity significantly contributes to lower levels of functional capacity among older people, which in turn can lead to limitations in everyday life. Even among healthy and active people, strength, endurance, bone density and flexibility are all 'lost' at a rate of about 10% per decade from the age of 30 and over. Muscle power (the speed with which a muscle is used) is lost at an even faster rate of about 30% per decade. 50% of all functional decline among older people can be attributed to physical inactivity. (9)

The loss of physical function is exponential and will eventually cross a threshold level beyond which a person cannot maintain an independent life. For some older people, rising from a chair is difficult, and getting up off the floor without help is impossible. Other examples of loss of physical function include:

- Crossing a road within the time allowed on traffic light controlled crossings requires an average walking speed that is higher than that achievable by most 70 year olds.
- Among people older than 65, 12% cannot manage walking outside on their own and 9% cannot manage stairs unaided. (10)
- In the over-70s, 25% of women and 7% of men do not have sufficient leg strength to get out of a chair without using their arms. (10)
- Twenty per cent of women and 14% of men over 50 do not have the flexibility to wash their hair comfortably. (10)
- Forty-seven per cent of women aged 70–74 have insufficient leg muscle power to step up onto a bus without using their arms. (10)

Together, the evidence of functional decline and decreased levels of physical activity associated with ageing emphasise the importance of promoting physical activity to all older people.

NB. More recent information on the levels of physical activity, health and function of older people has been published in Craig R and Mindell J (eds) (2007) *the Health of Older people – Key Findings (2007)* The Information Centre, London.

More detailed information about the benefits of physical activity and older people can be found at www.bhfactive.org.uk

SECTION 1 Physical activity and older people – the benefits

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SECTION 2

HOW MUCH PHYSICAL ACTIVITY SHOULD OLDER PEOPLE BE DOING ?

Current recommendations for older people and physical activity.

This section draws together and summarises current advice on how much physical activity older people should do to benefit their health, wellbeing and independence. It outlines:

- current recommendations on physical activity for older people
- further details for health and other professionals
- examples of messages to communicate such information to older people.

SECTION 2 How much physical activity should older people be doing?

The public health message and current recommendations

For general health benefit, adults should achieve a total of at least 30 minutes of moderate intensity activity a day on at least five days a week.

Older adults should take particular care to keep moving and retain their mobility through daily activity. Additionally, specific activities that promote improved strength, coordination and balance are particularly beneficial for older people. (1)

The American College of Sports Medicine (ACSM) and the American Heart Association (AHA) recommendations

The ACSM and the AHA have recently published new recommendations for physical activity and public health in older adults. (2) In addition to recommendations concerning aerobic activity, they include specific recommendations on strength, flexibility, balance and the importance of an individual action plan for older adults.

Aerobic activities

To promote and maintain health, older adults need moderate intensity aerobic physical activity for a minimum of 30 minutes on five days a week or, for selected older people, vigorous intensity aerobic activity for a minimum of 20 minutes on three days each week.

Strength activities

To promote and maintain health and physical independence, older adults will benefit from performing activities that maintain or increase muscular strength and endurance for a minimum of two days each week.

Flexibility

To maintain the flexibility necessary for regular physical activity and daily life, older adults should perform activities that maintain or increase flexibility on at least two days a week for at least 10 minutes a day.

Balance activities

To reduce risk of injury from falls, community dwelling older adults with substantial risk of falls e.g. with frequent falls or mobility problems, should perform exercises that maintain or improve balance.

Activity plan

Older adults should have a plan for obtaining sufficient physical activity that addresses each recommended type of physical activity. In addition to specifying each type of physical activity, care should be taken to identify how, when and where each activity will be performed.

SECTION 2 How much physical activity should older people be doing?

A stepwise approach (progression)

For older people who are not active at the recommended levels, plans should include a gradual (or stepwise) approach to increase physical activity over time using multiple bouts of physical activity. Many months of activity at less than recommended levels is appropriate for some older adults e.g. with a low level of fitness.

Guidelines on disease prevention and management

As our understanding of the exercise sciences increases, more specific physical activity guidelines have been developed, designed to provide an appropriate recommendation for target populations e.g. overweight and obese people and those at risk of falls and specific diseases e.g. diabetes and arthritis. A summary of this information can be found at www.bhfactive.org.uk (3) and (4)

A complete copy of the ACSM and AHA recommendations can be downloaded from www.circ.ahajournals.org

The US Department for Health and Human Services is currently reviewing recommendations for physical activity and older people, which will be published in the autumn of 2008. It is likely that these new recommendations will be consistent with the ACSM and AHA Guidelines above.

2.1 Interpreting the recommendations – professional understanding

In their planning of programmes and interventions, a range of professionals e.g. those working in primary health care, health promotion, physical activity, leisure, social care and the residential sector, are required to make use of the recommendations outlined above. The following information is included with the purpose of providing these professionals with a greater understanding of these recommendations and to assist in the development of appropriate advice, programming and promotion with older people.

30 minutes continuous activity?

While the recommendations above are to take part in moderate intensity activity for 30 minutes a day on at least five days of the week or more, it should be acknowledged that any activity is better than none at all, and (especially older) sedentary people should be encouraged to start at a level of activity with which they are comfortable. This may be as little as five minutes of activity to begin with, with the aim of gradually increasing in duration and intensity. (1)

Two sessions of 15 minutes moderate activity, or three sessions of 10 minutes moderate activity, has been found to achieve a similar benefit to one single session of 30 minutes of moderate intensity activity in middle-aged men.

The greatest gains are achieved when a sedentary person is encouraged to become a little more active, more often.

Levels of physical activity should be increased gradually in older people to decrease the risk of soreness, discomfort, and injury. Older people who have been sedentary should start with physical activity sessions of short duration and light intensity.

Older people with existing medical conditions or those who are unsure about their safety during physical activity should first consult their doctor before embarking on a physical activity programme.

SECTION 2 How much physical activity should older people be doing?

A step wise approach

The advice to increase physical activity gradually over time is highly appropriate and particularly important for older people. This advice minimises risk of overuse injury, makes increasing activity more pleasant and allows positive re-enforcement of small steps that can lead to the attainment of intermediate goals. It can be appropriate for older adults to spend a long time at one step to gain experience, fitness and self-confidence. Very de-conditioned and frailer, older people may need to exercise initially at less effort than a 5 on a 10 point scale and may need to perform activity in multiple, rather than continuous bouts. (2)

2.2 What is moderate intensity?

The relative intensity of moderate physical activity will depend on the age and fitness of the person. An indication of moderate physical activity is when the activity makes you breathe slightly harder and feel slightly warmer than normal, but you are still able to maintain a conversation. For some people this may require sustained activity such as jogging; for others with lower levels of fitness, it may mean walking at quite a slow pace. For older people who are not used to activity, this could also be achieved with chair-based activity. Many may find that even a 10-minute walk may be beyond their functional capacity and they will have to begin with a more limited physical activity programme.

The ACSM and AHA have defined moderate in the following way:

Moderate intensity aerobic activity involves a moderate level of effort relative to an individual's aerobic fitness. On a 10 point scale, where sitting is 0 and all-out effort is 10, moderate intensity activity is a 5 or 6 and produces noticeable increases in heart rate and breathing. (2)

Moderate or vigorous?

Combinations of moderate or vigorous intensity activity can be performed. On the same scale, vigorous intensity activity is a 7 or 8 and produces large increases in heart rate and breathing. However, vigorous activity has a higher risk of injury and lower adherence. Age-related loss of fitness, chronic diseases and functional limitations act as barriers to high levels of activity. (2)

Benefits of greater amounts of activity

Participation in aerobic and muscle strengthening activities above minimum recommended levels provides additional health benefits and results in higher levels of fitness. Vigorous activity and/or higher intensity levels of activity are appropriate for selected older people with sufficient fitness, experience and motivation. (2)

Muscle strengthening activity

To promote and maintain health and physical independence, older adults will benefit from performing activities that maintain or increase muscular strength and endurance for a minimum of two days each week.

It is recommended that 8–10 exercises be performed on two or more non-consecutive days per week using the major muscle groups.

To maximise strength development, a resistance (weight) should be used that allows 10–15 repetitions for each exercise. The level of effort should be moderate to high. On a 10 point scale, where no movement is 0 and maximal effort of a muscle group is 10, moderate intensity is 5–6. (2)

SECTION 2 How much physical activity should older people be doing?

In addition to resistance training (see page 12) other activities that involve strength include climbing stairs, walking uphill, rising from a chair, lifting and carrying shopping or digging the garden.

Why strength?

Strength activities maintain muscle and bone strength and help us with daily tasks such as climbing the stairs, getting out of a chair easily, lifting household objects or opening a jar. Stronger, larger muscles also burn more calories so can help maintain a healthy weight. Strength activities also help with good posture and balance. Improved muscle strength and tone will also help with better body shape.

Flexibility activity

To maintain the flexibility necessary for regular physical activity and daily life, older adults should perform activities that maintain or increase flexibility on a minimum of 2 days a week for at least 10 minutes a day.

Activities that promote flexibility include bending, reaching and stretching of muscle groups, Tai Chi, Yoga, Pilates, swimming.

Why flexibility?

Flexibility activities help us to maintain a full range of movement, move more easily and to stay independent. Maintaining and improving flexibility will assist greatly with the performance of everyday tasks such as dressing yourself, reaching for something on a high shelf, getting in and out of the bath, washing hair, or turning your head easily to look behind when parking the car.

Balance activities

To reduce risk of injury from falls, community dwelling older adults with substantial risk of falls e.g. with frequent falls or mobility problems, should perform exercises that maintain or improve balance. (2)

Activities that maintain and improve balance include walking, dancing and Tai Chi as well as specific balance exercises.

Why balance?

Balance activities will improve and maintain balance, giving confidence in movement e.g. stepping off the bus, using the stairs and helping to prevent accidental falls.

Individual activity plan

An activity plan identifies recommended levels of physical activity for a specific person and describes how the person intends to meet them. Older people with one or more medical conditions, or those with chronic conditions, are advised to develop a plan in consultation with a health care provider, so the plan takes into account therapeutic and risk management related to the conditions.

SECTION 2 How much physical activity should older people be doing?

Points to consider when designing the plan include

- Address each recommended component of activity e.g. strength, flexibility, balance.
- Those with chronic conditions for which physical activity is therapeutic should have an inclusive plan that integrates prevention and treatment.
- Sedentary older adults should include a gradual approach to increasing physical activity over time.
- People just starting, or those with low fitness levels, may need to participate in many months of activity at levels lower than those recommended. Over time, gradual increases in physical activity can be encouraged.
- Physical activity should be monitored on a regular basis with plans re-evaluated as abilities improve or health status changes.
- It is suggested that older adults discuss their physical activity programme with their healthcare provider at least once a year. (2)

Additional evidence suggests that, in addition to the above, an individual action plan should include goal setting. (5)

Priority areas

Promoting physical activity with older people should focus upon encouraging participants to reach their activity potential. Ageism discourages many from achieving their objectives for an active lifestyle. However, it may be difficult for some older people to attain high levels of activity and an individualised approach is necessary for developing an appropriate plan. Several areas should be emphasised in promoting physical activity with older people:

- Reducing sedentary behaviour.
- Increasing moderate physical activity with less emphasis on attaining high levels of activity. Realistic goals include 30 – 60 minutes of moderate intensity activity each day. Some older people may be fit enough and motivated to engage in vigorous physical activity.
- Take a gradual or stepwise approach to increasing physical activity over time. More time may be needed at one step to experience success, improve fitness and confidence.
- Performing muscle strengthening activity and engaging in all recommended types of activity e.g. flexibility and balance.
- Sustaining individual and community level approaches. (see Sections 3.1 and 3.2)
- Using risk management strategies to avoid injury. (2)

SECTION 2 How much physical activity should older people be doing?

Two sessions of 15 minutes moderate activity, or three sessions of 10 minutes moderate activity, have been found to achieve a similar benefit to one single session of 30 minutes in middle-aged men. (1)

2.3 Communicating the recommendation to older people

Older people require clear messages about how much physical activity is beneficial for their health, but they also need reassurance that they are unlikely to over-exert themselves. For many older people, the concepts of physical activity and exercise are problematic and are associated with either 'drill' (especially among the oldest age groups), or with fashionable exercise such as aerobics or gym or health club based activities.

Older people are not a homogenous group and communicating messages about physical activity to older people also requires an understanding of different needs, interests, motivation and aspirations of this population group. These appropriate messages should be considered in all communication strategies including one-to-one counselling and motivational interventions (see section 3.1) and promotional materials (see 3.4).

Guidelines on promotional messages

- Older people require specific and concrete information and encouragement to get moving, as well as information about how to get started and exercise safely. (5, 6)
- Recommendations and messages need to be simple, clear and consistent, avoiding vagueness. (6, 8)
- Messages must recognise the obstacles that older people face, e.g. they have busy lives and other responsibilities. (6)
- Use messages that suggest that physical activity will help people take control of their life and improve self-efficacy e.g. Age on your own terms. (6, 9)
- Offer something that will meet their needs e.g. positive reasons to be more active, playing and being with grandchildren. (6, 7)
- Increase self-efficacy by suggesting that they can overcome the obstacles, pressures and demands of daily life. (6, 9)
- Remind people of their excuses, and use humour to overcome these reasons for not taking part. (6)
- Use words and graphic pictures of experiences people would like to have, not what's good for them. (6, 7)
- Develop messages that lead to participants making their own decisions and easy choices. (6)

SECTION 2 How much physical activity should older people be doing?

- Use life-stage and life circumstances, not age categories, to target specific groups, that fit with a positive self-identity. (6, 10, 11)
- Confirm that the decision to be active will meet with social approval from friends, family and peers. (9, 11, 12)
- Ensure that appropriate and accessible role models are employed that participants can identify as being realistic and “someone like me”. (9,11, 12)

Use of language

There is some evidence that language can play an important part in positively communicating physical activity messages to the older person.

For some, the word exercise is associated with strenuous activity, hard work and effort, reminiscent of schooldays or the need to belong to a gym. (8)

Endurance is also associated with high levels of effort, whereas stamina is often interpreted as “keeping going”. (8)

Research suggests that describing groups of older people as “fallers” provides an unattractive label. Recommendations should focus upon positive lifestyles involving being strong and steady. (7,9)

Health and wellbeing can be interpreted in many ways to include the physical, mental and social dimensions of feeling good. (6)

Some examples of messages that have been used

30 mins a day any way – The fit for life plan (14)

Be Strong, Be Steady (15)

Active for Life – Half an Hour a Day (16)

Get Active Your Way – Age Is No Barrier (17)

Given the breadth and strength of the evidence, physical activity should be one of the highest priorities for preventing and treating disease and disablement in older adults. Effective interventions to promote physical activity in older adults deserve wide implementation. (1)

SECTION 2 How much physical activity should older people be doing?

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SECTION 3

PROMOTING PHYSICAL ACTIVITY WITH OLDER PEOPLE

Evidence into practice.

This section draws together and summarises guidance on translating evidence into practice on promoting physical activity with older people including:

- population wide interventions
 - community/locality-based interventions
 - one-to-one interventions
 - exercise and physical activity programme planning.
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SECTION 3.1 Population wide interventions – recommendations for practice

The use of evidence

Decisions about policy and practice in the public sector are increasingly driven by the need to ensure that the promotion of physical activity with older people is informed by the use of the best available evidence. The process of drawing together, analysing and synthesising evidence from research is a central principle of evidence-based practice.

Typically, the process of reviewing an area of practice or interventions will include the production of a systematic review of effectiveness, a meta-analysis or some other review-level synthesis and interpretation of evidence from research e.g. The National Institute of Health and Clinical Excellence. (1)

More recently, there has been a move towards more inclusive summaries of evidence. These include those from locally developed practice (3,4,5), including components of good practice and in particular using such information to fill some of the gaps in evidence where systematic reviews have left incomplete guidance for health and other professionals.

These guidelines have drawn upon a range of sources including high level reviews referred to above, but also includes research papers from professional journals, programme reports and expert practitioner reviews.

They have been designed to assist professionals answer the questions:

- Do we know what works?
- How can I use this evidence to inform my planning?

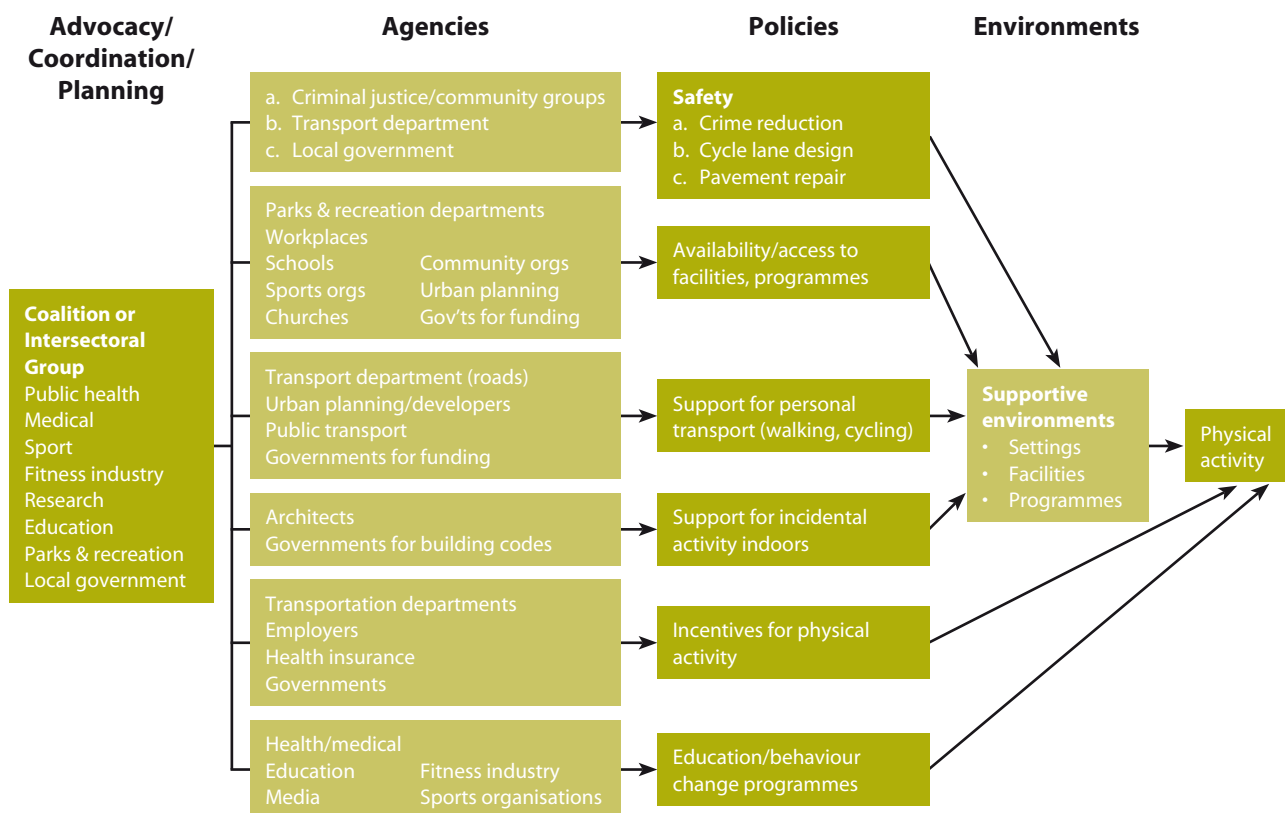
In summarising this learning, the guidelines highlight components of good practice and programme design characteristics that can be used in the design of interventions, and are organised at three related levels

- **Population wide interventions** e.g. environmental and policy interventions, campaigning and promotion
- **Community/locality based interventions** e.g. facility-based programmes, area-based physical activity projects and activity/participation events
- **One-to-one interventions** e.g. lifestyle counselling and advice.

SECTION 3.1 Population wide interventions – recommendations for practice

This approach reflects the model developed by Sallis et al 1998 (see below) and other ecological models of health promotion as outlined in 2007 by the National Institute of Health and Clinical Excellence. (1)

Ecological model of healthy aging (Sallis et al 1998)



In addition, these guidelines offer an outline of best practice in teaching, instructing and leading physical activity and exercise programmes with older people.

- **Physical activity and exercise programme planning** e.g. for those leading and instructing groups involved in a range of activities e.g. walking, Tai Chi, music and movement classes and chair-based exercise

SECTION 3.1 Population wide interventions – recommendations for practice

Introduction

These recommendations relate to a range of community and population wide interventions including environmental e.g. building design, urban environment, natural environment, policy and transport, that are associated with promoting physical activity among older people. They relate to what are often described as ecological models of health promotion (Sallis et al 1998), which examine the interaction and influence of physical and socio-cultural environments on health. These suggest that the environment can both restrict and encourage individual and population behaviours by promoting and demanding certain actions.

There is limited research into population wide interventions relating to physical activity and older people. Reviews of multiple studies show that a variety of environmental variables are associated with physical activity in children and adults (and possibly by inference also related to older people). However, the evidence suggests an association or correlation between such environmental factors and physical activity rather than high level evidence.

More recently the National Institute for Clinical Excellence (2) has published guidance on Physical Activity and the Environment which makes six key recommendations, although these apply to the promotion of physical activity to all population groups and not just older people.

Consequently these guidelines provide general principles as well as recommendations relating to:

- transport
- urban environment and neighbourhood design
- the natural environment
- policy development
- building design
- media and communications campaigns
- supportive environments.

The creation of physical activity friendly/ conducive environments e.g. safe walking routes for older people will also benefit residents of all ages and increase similar opportunities for other population groups. Design strategies, informed by the needs of older people, can also serve as general principles of good community design.

SECTION 3.1 Population wide interventions – recommendations for practice

Transport

The provision of appropriate and reliable transport has long been identified as a key component of planning for older people’s programming. While car usage is extending into the later years, many older people prefer to use public transport. (3)

Physical activity participation among older people is likely to be improved by:

- Improved transport options, especially in communities where this is a problem, including access to public transport including appropriate time-tabling. The provision of bus shelters remains a critical factor in providing access to facilities and programmes for older people.

Plan a comprehensive network of routes for walking, cycling and using other modes of transport involving physical activity. These routes should offer everyone (including people whose mobility is impaired) convenient, safe and attractive access to workplaces, homes, schools and other public facilities. (2)

Walking and cycling remain the most popular activities for older people and are also the most accessible in terms of convenience and location. Promoting ‘active’ or non-motorised transportation, supported by the development of safe, purposeful and practical routes for walking and cycling, is a priority for increasing regular physical activity among older people. (4)

Accompanied e.g. buddy and led walks may increase motivation and social support for walking, particularly among new and less confident participants. (5,6,7)

Urban environment and neighbourhood design

Physical activity participation among older people is likely to be improved by:

- Increasing the number and breadth of physical activity classes and facilities for older adults, particularly in neighbourhoods with the least number.
- Assessing and improving the quality of the environment e.g. by having level, non-slip surfaces, maintenance, repairs and snow clearance, and placement of pavements and pedestrian road crossings.

Road crossings can pose significant obstacles to older pedestrians, who move at slower speeds than the average younger, healthier pedestrian. (Many older people are unable to walk at the speeds required – 2.8 feet per second – to cross roads at pedestrian road crossing). Some older people may also have difficulty in seeing and judging traffic signals and oncoming traffic. Minimising crossing distances and increasing the amount of time allowed for crossing are of central importance to the older population.

SECTION 3.1 Population wide interventions – recommendations for practice

Ensure pedestrians, cyclists and users of other modes of transport that involve physical activity are given the highest priority when developing streets or roads. This includes people whose mobility is impaired.

This might include:

- the re-allocation of road space to support physically active modes of transport
- restricting motor vehicle access
- introducing traffic calming schemes to restrict vehicle speed. (2,5)

Access and quality of services

Other factors related to urban design and the promotion of physical activity include accessibility and proximity of local services e.g. shops, chemist, library, post office, newsagent, issues related to visual and aesthetic appeal e.g. absence of rubbish, vandalism and graffiti, appropriate lighting and the convenience of water and toilets.

- Increased access to shopping centres and walking trails are associated with increased walking among older people.
- Improved safety of neighbourhoods where fear of crime is an issue will also encourage walking.
- Strategies to reduce crime and perception/risk of danger e.g. safety training, 'eyes of the community', Neighbourhood Watch, will increase motivation to walk and cycle among older people.
- Strategies to increase neighbourhood and social cohesion e.g. mutual trust, shared values, solidarity among neighbours, are significantly associated with increased levels of physical activity among older people. (5)

The natural environment

Ensure public open spaces and public paths can be reached on foot, by bicycle and using other modes of transport involving physical activity. They should also be accessed by public transport. (2)

Ensure public open spaces and public paths are maintained to a high standard. They should be safe, attractive and welcoming to everyone. (2, 5)

Physical activity participation among older people is likely to be improved by:

- Improved physical environments that will facilitate more walking and cycling. (2)

Parks are more likely to stimulate opportunities for physical activity if they are aesthetically pleasing (tree lined walking paths), and benches (with backs and in shade) are provided for opportunities for 'pit stops' and rest. This will increase the perception that such places are suitable for informal as well as organised activities.

- Ensuring that pavements and roads are cleared of snow and ice to maintain opportunities for walking and cycling at all times of the year. (5)

SECTION 3.1 Population wide interventions – recommendations for practice

Policy development

These can be divided into legislative, regulatory (formal/legal government actions), or policy making (organisational statements/rules) actions that have the potential to affect physical activity for older people e.g.

- Enforcement of traffic laws and regulations e.g. speed limits, traffic patterns and pedestrian rights of way.
- Enforcement of aspects of community safety and crime reduction policies.

Involve all local communities and experts at all stages of policy development to ensure that the potential for physical activity is fully maximised. (2)

Ensure planning applications for new developments always prioritise the need for people (including those whose mobility is impaired) to be physically active as a routine part of their daily life. (2)

Assess in advance what impact (both intended and unintended) any proposals are likely to have on physical activity levels. (2)

Develop policies which promote physical activity for older people involving a range of sporting and recreation organisations e.g. governing bodies of sport.

Residential, housing and care organisations should develop policies which promote physical activity for older people.

Building design

During the design or refurbishment of workplaces and other public buildings:

- Ensure staircases are designed and positioned to encourage people to use them (2)
- Ensure staircases are clearly signposted and are attractive to use (2, 5)
- Assess and evaluate the *age friendliness* of all facilities (5,8)
- Ensure new workplaces are linked to walking and cycling networks. Where possible, these links should improve the existing walking and cycling infrastructure by creating new through routes (2)
- Increase secure cycle storage spaces
- Increase the number and breadth of walking, recreational spaces and exercise facilities/gyms, in residential and care settings.

NB. Improvements in building design and technology, e.g. wheelchair access, ramps, lifts, signing, automatic doors, have led to increased access to buildings. However, such technology has also reduced the need for physical activity, e.g. stair climbing.

SECTION 3.1 Population wide interventions – recommendations for practice

Media and communication campaigns

Provide information and materials on physical activity in languages and formats designed to reach all adult population segments e.g. low reading levels, culturally appropriate.

Identify optimal channels for communicating this information to lower income and minority segments of the community.

Provide information about exercise opportunities and resources in the community that are appropriate for older people.

Design specific informational cues for public places e.g. using the stairs.

Enhance public education to change norms, values and beliefs about the value of physical activity for persons 50 and over. (8,9)

Supportive environments

Increase the number of older people, friendly physical activity settings, facilities and programmes.

Increase the public and media profile of active older people.

Increase the importance of active older role models as motivators, leaders and instructors working with older people.

Educate significant others e.g. family, friends and peers, on the importance of physical activity for all older people.

Educate health and other professionals e.g. GPs and practice nurses, exercise and sports professionals, care and residential managers and workers, on the importance of physical activity for older people. (8,9)

SECTION 3.1 Population wide interventions – recommendations for practice

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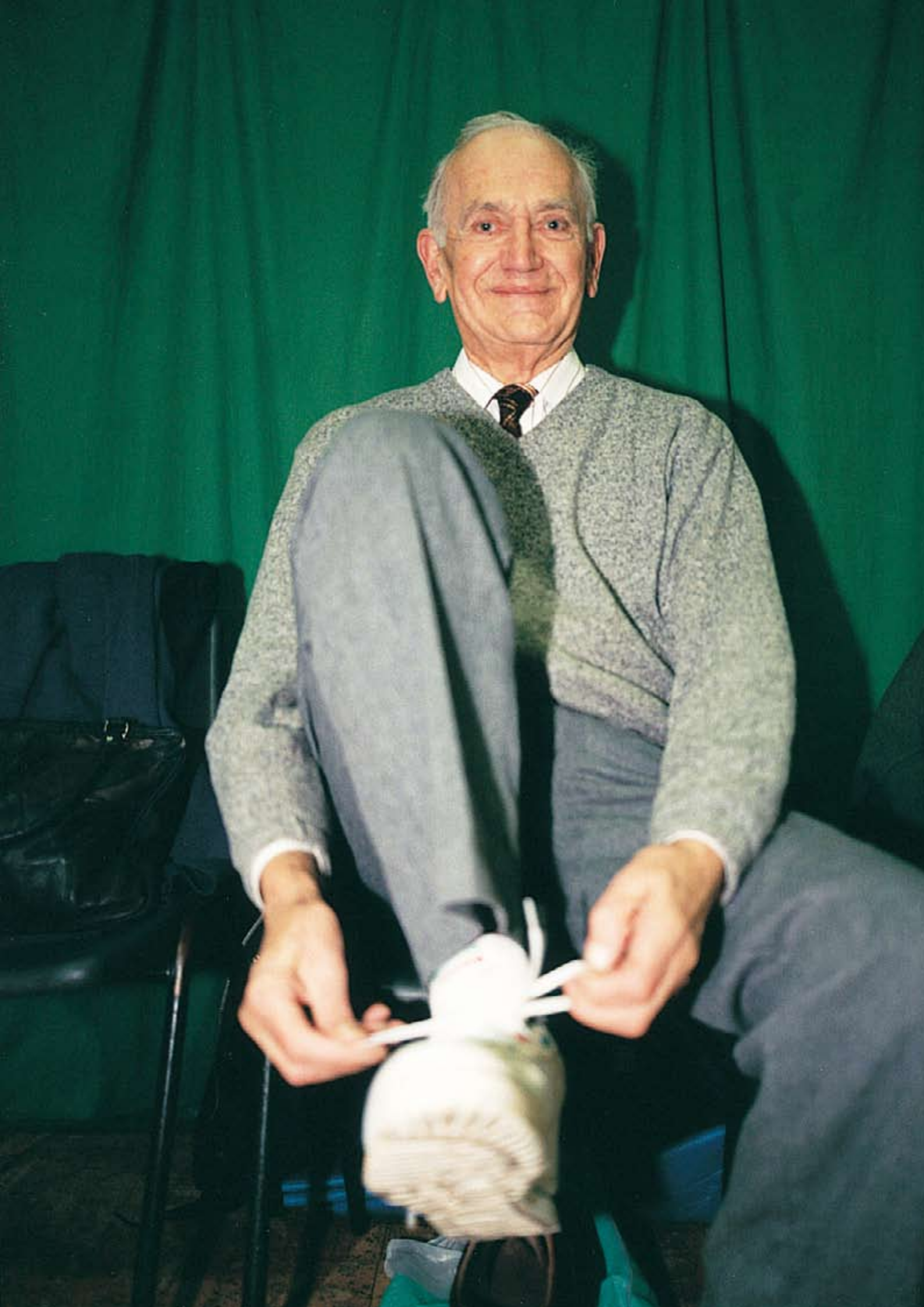
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SECTION 3.2 Guidance on community or locality-based interventions

Community and locality-based physical activity programmes for older people may take many forms, ranging from the introduction of a city-wide walking programme, to the establishing of a village-based peer health mentor or leadership programme. Most commonly, targeting new participants is often, though not always, time limited and also draws upon the skills of a number of local partner organisations. From design to completion, there are a number of key components or design characteristics essential to success. These include:

Time for programme design and planning

Allow sufficient planning and development time for the intervention. Physical activity interventions, particularly those trying to reach an audience that may be reluctant to engage in physical activity, can take significant time to develop and become established. (1)

In identifying the aims and purpose of a programme, it is essential to recognise the influence of policy and strategic levers, particularly those associated with programme partners. (1)

Developing the partnership

Develop a partnership infrastructure and collaborative working. Most interventions have benefited from partnership working with a number of agencies. Particular benefits realised so far include joint and additional resources in the form of funding, facilities and equipment and being able to access different skills and expertise. Partnership working extends the network and contacts of the lead organisation, enabling it to reach and engage with more participants from a variety of identified target groups. (1,2,3)

The development of such partnerships also requires regular communication with steering and advisory groups and stakeholders – ensuring that there is clarity among all concerned concerning roles and responsibilities and desired outcomes. (1,2,3)

Engage and involve participant groups

Engage and involve participants and community groups in needs analysis and planning. Consultation with users from the intended target audience and with related community groups helps to identify needs and develop understanding of the barriers to participation. It also helps ensure that the nature of the intervention is appropriate for the intended audience. Actively engaging participants in the development, delivery and ongoing improvement of the intervention also ensures that it remains user focused. (5,6)

Undertake a thorough audit

Review the knowledge and skills required at the planning stage and address gaps and weaknesses. Most physical activity interventions require a broad mix of knowledge and skills which will rarely be found in one project manager. Skills needed relate to engaging and maintaining the involvement of the target audience, as well as managing and delivering the project. Initiatives that target people with specific health problems may require specialist knowledge and expertise. Evaluating the project outcomes also requires a particular skill set, as does obtaining research ethics clearance (if required).

Experience suggests that there is a need to build additional capacity and skill sets through training and infrastructure development, These might include learning related to safety and risk assessment and evaluation skills. (1)

SECTION 3.2 Guidance on community or locality-based interventions

Marketing and promotion strategy

A marketing and promotion strategy should be built around the key questions of:

- Who are we trying to target?
- Who is our intended audience?
- What is the message that we are trying to communicate?
- What communication channels and technologies should we use?

Marketing messages should be built around the needs, beliefs and expectations of the intended audience and their perceptions of the benefits of a healthy lifestyle.

Promotional messages must assume that older people know the benefits of physical activity, but for some reason they haven't taken advantage of that message.

The message should feature ordinary people doing ordinary things. Older people respond best to promotional materials when they can identify with the people and the activities in the materials – they prefer to see “people like us”, or someone they would like to have as a friend. (1,6,8,9)

Ensure choices are available

A range of intervention strategies are associated with increases in physical activity with no one approach consistently and significantly superior.

A range of physical activity programmes should be developed that target people aged 50 and over. These should include a combination of individual and group approaches, using either group-based or home-based exercise sessions with support and follow-up.

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. (1,4,5)

Building support strategies

Making the change and adopting physical activity as a regular lifestyle choice provides many challenges for the older person. Whatever the intervention designed to assist the individual, group support has been identified as a critical component of successful change. Support can provide further information, advice and guidance, a companion to accompany a beginner to a new class or group, as well as motivation and understanding when things go wrong. Support can also be provided through informal social events and by involving participants in monitoring and evaluation activities.

Interventions that provide support and follow-up are associated with changes in physical activity and include telephone and written contact as well as support, e.g:

- computer-generated feedback and messages
- informal group meetings and social support
- use of exercise log books and diaries. (1,5,7,10,11)

SECTION 3.2 Guidance on community or locality-based interventions

Exit strategies from intervention

Have planned exit routes in place for participants at the start of the intervention. Once participants have been engaged in physical activity through a specific intervention, such as an exercise class or motivational interviewing and referral from a health practitioner, there is a need to have in place exit programmes/support and options available and agreed with other partners. Such opportunities accommodate a desire for a change in activity or a new interest, as well as providing continuity and progression to an activity at a more appropriate level where desired. The opportunity to access choices is also identified as a component of effective practice. (1,2,4,5)

Monitoring and support through change

Ensure that there are systems in place to monitor the progress of a programme. These will assist partners to review the progress of a programme and respond to changes and setbacks e.g. changes in roles or personnel. They will also identify additional training and capacity building that may be required as a programme matures. (1)

Planning for evaluation and data collection

Establish how the success of the intervention will be measured at the outset, and identify existing mechanisms or put in place the necessary monitoring and evaluation framework.

Physical activity programmes for older people are planned and implemented by a range of different partner organisations, e.g. a charity, a health promotion agency, a local authority department or an older people's group. Although working together, there may be different points of view about what is important about the project, and this will influence how they view the purpose of the evaluation and what they want to find out about it.

Many interventions rely on data capture from participants to demonstrate success, which can be difficult and time consuming. Depending on the measures of success selected and the robustness of the data required, additional expertise may need to be brought in to set up or manage the monitoring and evaluation process.

There is a need to distinguish between formative evaluation, designed to improve future programme development, and summative evaluation, designed to evaluate the effectiveness of the programme.

There is a difference between evaluation and research. Research is expensive, will require additional expertise and is probably not required for most programmes. (1)

SECTION 3.2 Guidance on community or locality-based interventions

Programme sustainability

Develop a guide to survival. Ensure that there is sufficient time given over to strengthening programmes and finding exit routes so that they can make the change from pilot to mainstream provision and services. This may include:

- Developing and communicating understanding and recognition among programme stakeholders.
- Communicating evaluation findings with programme partners and stakeholders.
- Positioning for new opportunities for further programme development with new partner agencies.
- Understanding the nature of each other's planning processes and strategic fit to policies.
- Ensuring continuity of leadership, if someone leaves. (1,2)

SECTION 3.2 Guidance on community or locality-based interventions

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SECTION 3.3 Guidelines on one-to-one intervention design

Introduction

There are many different opportunities for an intervention where advice may be helpful e.g. different life stages and trigger events. For the older person, these may include:

- Retirement, empty nesting as the children leave home, moving house, or moving into a residential, care or nursing setting. These are seen as life stage events, when changing circumstances often prompt people to reconsider many aspects of their lives, including their health.
- The onset of illness or disease associated with ageing, such as arthritis, or a specific acute event, such as a heart attack. These trigger events may cause people to reassess their health and make changes towards a more active lifestyle.

Opportunities may also be provided through primary care.

A range of people may be in a position to provide such advice for a range of reasons e.g:

- Practice nurses and GPs, senior health mentors on befriending schemes, providers of day care centres, managers of sheltered and supported living schemes, health and care professionals in residential care and nursing homes, community health practitioners such as community physiotherapists or community nurses.

Advice may be offered in a variety of ways including:

- Planned and structured counselling and lifestyle advice programmes, referrals and recommendations provided within a health or care setting and informal visiting, mentoring and befriending schemes.

Key components for one-to-one interventions

Employ the use of a health educator

- GPs are seen as authoritative sources of information by older people, and advice from a GP (both negative and positive) is seen as being significant and important. (1)
- Brief Primary Care interventions involving counselling in the general adult population do promote short-term gains in physical activity, including those incorporating physical activity specific advice, those tailored to patient characteristics and preferences, and the provision of supplementary materials. Short-term improvements can also be achieved by other professionals, including nurses and other health educators. (2,3,4,5)
- Long-term increases in physical activity are not guaranteed from primary health care interventions among adults. Although GPs see a large number of older people, a number of factors mean that they might not have time or the opportunity to promote physical activity among older people:
- GPs are under increasing pressure to see large numbers of patients in time-limited opportunities for advice and intervention.
- They have to follow an increasing number of specific disease-based protocols and guidelines.

Studies suggest that older people see “someone like us” – someone of a similar age, an “ordinary” person and perhaps someone of the same sex – as being the sort of person who should promote physical activity. The person should also have an understanding of the barriers and problems that physical activity could present to older people. (1,2,6,7,8)

SECTION 3.3 Guidelines on one-to-one intervention design

Extended consultation time

It has been suggested that more intensive interventions may be required due to the potentially long-standing sedentary behaviour of older people, the added barriers to physical activity specific to older people, and the greater prevalence of specific conditions and diseases among this group.

Successful interventions have involved an initial 20-40 minute face-to-face session with a health educator. (9,10)

Assess the potential problem areas

Assessment of problem areas, together with collaborative identification of goals between patient and staff, creation of a tailored action plan and systematic follow-up support (see page 38) have been suggested as the starting point of a sequence of activities for addressing health behaviour change among older people. (4,11)

Assess readiness to change of potential participants

A variety of models are currently used to assess the readiness to change of potential participants of physical activity programmes.

Those older people with the poorest health are most likely to visit their GP, but may be most resistant to change. The 50% of those older people who are inactive are least likely to respond to a GP and may require a different type of intervention e.g. a peer health mentor scheme.

Interventions might be more effectively aimed at semi-active older people who seem positively disposed to participating but need help to get started or to stay involved.

Critical to working with people attempting to change their behaviour is an understanding of 'stage matching' to increase the likelihood that a person will successfully move through the stages of change. Stage matching is when different intervention processes are adopted for each 'stage of change'. (12,13,14)

Agree the goals of a programme

Both the older person and the motivating/interviewing person should agree the goals of the programme.

Goals for physical activity may be very varied and include sustained mobility and independence, playing with grandchildren, and broader social outcomes as well as improved health.

A mismatch between participants' and advisors' expectations is likely to result in disappointment and a reluctance to continue with change strategies. (15,16)

It is important to distinguish between short-term (behavioural goals e.g. attending a class regularly) and longer-term outcome goals e.g. improving strength or regaining independence. (15,16)

SECTION 3.3 Guidelines on one-to-one intervention design

Identify, recognise and resolve the social and environmental barriers to physical activity

Finding out what triggers older people to try a physical activity programme is likely to open up a discussion about their beliefs e.g. locus of control, the values they hold for certain types of activities, worries about risks, thoughts about personal capabilities, and the challenges involved in getting started.

It is important to recognise the range of individual differences in motivation among older people, determined by previous experiences, beliefs and other influences. (1,14,15,16)

Draw up an action plan that specifies activity

Older people require clear messages about how much physical activity is beneficial for their health, but they also need reassurance that they are unlikely to over-exert themselves. For many older people, the concepts of physical activity and exercise are problematic and are associated with either the military (especially among the oldest age groups), or with fashionable exercise such as aerobics or gym or health club based activities). (1)

Any physical activity recommendation needs to be flexible to take account of the participant's psychological readiness to change, personal goals, current activity and health status, and their personal preferences.

Where appropriate the plan should be tailored according to any chronic conditions and activity limitations e.g. possible risk of falls, individual abilities and fitness. (20)

Developing a personal physical activity programme that takes into account health, preferences, ability and other factors, increases levels of physical activity among older people. (1,9,16,17,20)

Ensure a choice and range of accessible local activities, including lifestyle activities

There is conflicting evidence on whether older people prefer group or individual physical activity programmes. The social benefits of physical activity are an important factor for many older people.

Home-based programmes with telephone-based counselling have been particularly effective in facilitating high programme participation, exercise adoption and programme adherence. However, group-based activities may be preferred, and the importance of social support has been demonstrated consistently.

An increase in the number and breadth of physical activity classes and facilities for older people is a key element of programme effectiveness. Programmes that promote everyday lifestyle activities e.g. walking and cycling, are also effective. (8,9,14)

Provide supplementary opportunities materials

Having some sort of immediate support, including targeted or tailored written materials that support the action plan (especially when new behaviours are difficult to sustain), is seen as valuable by participants.

Other strategies should include providing educational materials on physical activity in languages and formats to reach all populations of older people e.g. minority ethnic groups, and providing information on local physical activity resources and opportunities that are appropriate for older people.

Educational programmes which include lifestyle advice and information on a range of health topics e.g. positive mental health, nutrition, are effective in supporting participation. (4,9,13)

SECTION 3.3 Guidelines on one-to-one intervention design

10. Ensure that support strategies are in place

Ensure that there is systematic follow-up and support over a period of time, as the majority of studies on exercise and older people fail to demonstrate long-term maintenance (12 months or more) of initial gains. There needs to be a greater focus on sustaining behaviour change, long-term outcomes and maintaining initial gains.

Social support is associated with positive changes in exercise behaviour, but many older people who live alone may lack the support of friends or family. In such cases, peer or buddy support has been found to be effective in supporting participation.

Ongoing telephone contact appears to be an important component and is supported by a large body of literature on the effectiveness of telephone-based health behaviour interventions. Other successful strategies have included newsletters.

In supervised exercise programmes, the interpersonal skills of the exercise practitioner in providing technical support, supervision and attention are also important. (3,4,8,9,13)

SECTION 3.3 Guidelines on one-to-one intervention design

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SECTION 3.4 Guidance on exercise and physical activity programme planning

Introduction

These guidelines are designed or for use by organisers, instructors, teachers and leaders of programmes for older people as part of a class or group.

NB. These guidelines are not designed to provide specific advice on exercise prescription e.g. frequency, intensity, time and mode. Such recommendations relate to the needs, interests and functional abilities of the individual and will vary according to exercise history and individual risk factors, and are dealt with in detail in courses for exercise teachers and instructors and accompanying guidelines and training.

Guidelines for the older population have been published in ACSM's *Guidelines for Exercise Testing and Prescription (2006)*. These include general exercise guidelines for a wide range of participants, as well as addressing considerations in special populations such as cardiac patients, those with type 2 diabetes and older people.

More information on these and other guidelines can be found at www.bhfactive.org.uk

Making a start and overcoming the barriers

Older people understand the benefits of physical activity but are often reluctant to get involved. Questions that they need answering might include:

- How can I get started, will it be fun and will I be able to enjoy it?
- Will there be other people like me and will I feel welcome?
- Will the leader understand and support me?
- Is the leader someone I can trust?

The beginner will require information and reassurance about medical concerns (including fear of injury), attitudinal barriers (such as perceived lack of ability and incorrect beliefs about exercise and physical activity) and illness and injury.

Involve participants in the process

Participants should be actively involved in all aspects of programme development, including planning, promotion and evaluation. Involving participants assists in identifying needs, develops an understanding of the barriers to participation, and ensures that the programme is appropriate for the intended audience e.g. scheduling and timing. Actively engaging participants also ensures that the programme remains focused on the needs of the participants.

Ensure accessibility

Ensuring that opportunities are accessible is consistently identified as one of the most important components of programme planning. This includes proximity to residences in a conducive, accessible, well-lit facility with good public transport, refreshments, changing and toilet facilities.

Improving access to places so that people can be active, such as walking or cycle trails, classes at gyms or senior centres, recreation centres and open spaces, will greatly assist participation among older people.

SECTION 3.4 Guidance on exercise and physical activity programme planning

Provide an appropriate induction session

For new participants, joining a class or group may be the first such experience for some considerable time if not completely new. By providing information and reassurance about the level of physical activity, clothing, safety and that the programme is designed to meet individual needs and goals, participants will be reassured.

Undertake an assessment of needs

Pre-screening and assessment will assist in determining the individual level of function and readiness to join a programme and should include enquiring about medical background, medication and pre-existing health conditions. The psychological aspect of assessment and motivation is a critical, but often overlooked, component of programming that addresses needs as well as personal goals relating to exercise participation.

Leadership

Establishing a friendly and mutually respectful style of communication between participant and leader is important.

The ability of the leader to create a friendly, enjoyable and welcoming group atmosphere is critical.

Individual goal setting and progression

Participants should be encouraged to set their own programme goals and targets that are realistic and appropriate for their current lifestyle and motivation. Such goals may relate to health, function, activities of daily living, motivation or small lifestyle changes.

Steady and careful individually-based progression, in the early stages, is essential to ensure early achievement and boost confidence. An appropriately paced programme with progression builds additional confidence and is particularly important in the early stages. Intensive tuition and one-to-one support during the first weeks of the programme is important for increasing skills and confidence.

Develop belonging and ownership

A programme can operate like a club within a facility, with opportunities to build relationships and friendships with peers with similar interests and skills. Leaders are instrumental in creating environments that motivate older people to do more. They provide the experiences that offer fun and socialisation and a sense of belonging appropriate to shy, apprehensive beginners.

Develop an enjoyable, social and welcoming atmosphere with a strong group allegiance and sense of ownership among participants. This can be achieved by:

- Involving participants in programme elements, their own progression and the promotion of the group and recruitment of new members.
- Developing a sense of belonging (to join and be accepted into a group) which provides energy and enhances performance.
- Ensure a warm welcome and familiarisation opportunities for new members, but beware of creating a strong group identity and sense of belonging that may present barriers to newcomers.

SECTION 3.4 Guidance on exercise and physical activity programme planning

Recognise achievement and progress

Sometimes it takes a while for the more obvious rewards of regular physical activity to be realised e.g. weight loss, improvements in strength or flexibility. Ensure that, no matter how small, other forms of individual achievement are recognised. This may take the form of recognising regular attendance or individual progress. Leaders can recognise individual achievement (privately or publicly) by providing a compliment, with a handshake or certification. Even a member returning after an absence requires recognition.

Education

Educate the participant about:

- their responses to physical activity and to understand the normal and abnormal responses to physical activity
- their bodies and the specific condition they may have e.g. osteoporosis, arthritis
- balance, strength, flexibility and the other components of fitness
- muscle groups and joints and their functions and their contribution to activities of daily living
- how to monitor their own progress, self-monitoring, evaluation e.g. how am I doing?
- the importance of additional opportunities for regular physical activity outside of the group.

Provide regular encouragement, feedback, reinforcement and problem solving techniques that help to sustain progress and interest and teach participants how to incorporate physical activity into daily routines.

Build other educational opportunities into programmes, such as visiting speakers and discussions on other related health topics identified by the group e.g. falls prevention, good nutrition, relaxation.

Build social and other support into the programme

Establish programmes that help build social support (at work or in the community) for physical activity. This can be achieved by incorporating peer mentors or buddies in a programme to improve recruitment, retention and motivation.

Recognise and follow up absentees from a programme and develop a rota to visit someone who may be unwell.

Provide exit routes and opportunities for change

Ensure that there are appropriate 'exit routes' to other exercise opportunities should a programme close or the individual needs and/or interests change to such an extent that a different e.g. more or less challenging, class might be more suitable.

SECTION 4

SUPPORTING MATERIALS AND FURTHER INFORMATION

SECTION 4 Supporting materials and further information

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