Avon Network for the Promotion of Active Ageing in the Community

Promoting physical activity in older adults: A guide for local decision makers

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This report represents one of the outcomes of a 12–month collaborative network in AVON (AVONet). Through AVONet we attempted to identify best bet physical activity (PA) promotion strategies for older adults.

What information is the report based on?

- A review of the published evidence base on evaluations of physical activity promotion interventions for older adults
- Input from researchers from UK, Europe and USA, representatives of non-governmental organisations, service commissioners, providers and users through three workshops dedicated to explore key challenges and solutions to physical activity promotion for older adults
- Focus groups and interviews with diverse groups of older adults, service providers and users
- Existing locally-based studies featuring objective assessment of older people’s activity, function, and lifestyles

We have synthesised these sources of information and used our combined experience with development, delivery, and evaluation of physical activity programmes with older adults to prioritise and condense into a concise guide. There are many gaps in the evidence with older adults, particularly cost-effectiveness data, and we have in places considered research with younger adults. **However, there is a need and an opportunity to act now.** Therefore some of our guidance and suggestions should be regarded as our ‘best guess’ advice.

In support, the document is endorsed by:

**Who is it intended for?**

Physical activity co-ordinators and practitioners, community programme developers, health promoters, Directors of Public Health, members of local Health and Well-Being boards and relevant policy makers.

**How might it be used?** To help decision makers and service providers:

- Understand key issues around physical activity promotion for older adults
- Understand the different approaches to physical activity promotion in older adults
- Develop activity promotion programmes for the new UK physical activity guidelines
- Convince authority of the need for action
This guide is an output of the AVON Network for the promotion of active ageing in the community (AVONet).

AVONet was a year-long research collaborative involving the Universities of Bath, Bristol and West of England, Avon primary care trusts, local city councils, service co-ordinators, providers and users. Sources included 1. A comprehensive literature review of evidence from published research, 2. Secondary analysis of existing databases featuring local participants (http://www.bristol.ac.uk/enhs/opal) 3. Focus groups and interviews with service providers and service users. 4. Interactive workshops bringing together researchers, service providers, policy makers, commissioners and service users.

AVONet was funded by the MRC - managed Lifelong Health and Well-being Phase 2 Initiative (LLHW), a collaboration of government agencies and charitable trusts that promote research into the health and quality of life in later life. LLHW contributors include:

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In 20 years’ time, nearly a quarter of the population in the UK will be aged 65 and over. Older age brings greater threats of coronary heart disease, stroke, diabetes, cancer, arthritis and obesity. Gradual loss of physical and cognitive function and onset of debilitating mental conditions such as dementia pose serious threats to independence and well-being. Many of us will live into our 90s, **so at age 65 we may still have a third of our lives to enjoy**. Finding ways of ageing well and enjoying a full, active and engaged life has therefore become a public health priority.

In 2011, the evidence for the health and well-being benefits of a physically active lifestyle was sufficiently convincing for the four Chief Medical Officers (CMOs) of the UK to publish the first guidelines for physical activity for older adults. Not only is it clear that regular physical activity **adds years to life** through reductions in disease and disability, but it also **adds life to years** through maintained or improved capacities, and greater social involvement, independence and mental well-being. Realisation of these benefits can in turn bring large savings in health and social care costs for the NHS and local authorities.

There is plenty of scope for increasing the activity levels of older adults. While they have the most to gain, older adults in the UK have the lowest levels of physical activity compared to other age groups and also spend the largest amount of time being sedentary. Older adults are a neglected population when it comes to physical activity promotion and the challenge of finding the best community-based solutions remains.

This report from the AVONet team synthesises evidence and experiences from a range of sources to identify **best bet** physical activity (PA) promotion strategies for older adults. The report is aimed at physical activity co-ordinators and practitioners, community programme developers, health promoters, Directors of Public Health, members of local Health and Well-Being boards and relevant policy makers. It is written with the aim of stimulating and supporting action at the local and national level. We hope you find this guide informative and helpful and that you are able to join the increasing numbers of academics and professionals who are committed to improving the lives of older adults through physical activity promotion.
Section A presents the case for physical activity promotion for older adults within the currently shifting context of public health. Section B summarises the key recommendations for physical activity for older adults that are presented in the 2011 CMO’s report. Section C outlines the main population factors that currently influence how active an older individual might be. These include socio-demographic factors, health and function status, and characteristics of local neighbourhoods; this information can be used to target local populations. Section D presents current evidence, theory and thinking from health and social psychology that identifies factors such as self-perceptions and confidence, attitudes and habits and how we might do a better job at motivating older adults to become more active. Section E is where we would like to be able to definitively state which approaches to activity promotion are most cost-effective. As with many areas of preventive public health, the evidence base is still developing and data to compare the value of different approaches are not available. However, we draw attention to three different focal points for programmes which have established support. Based on existing examples, we provide guidance on how best to make these approaches work in pragmatic settings. Section F offers insight into delivery of programmes, with particular emphasis on the critical issues of recruitment and marketing, evaluation and partnership working.
Key Findings

- Transition into old age is a golden opportunity to create long-lasting health benefits. Given the current low levels of activity in older adults, there is high potential for change and impact.

- The key recommendations for physical activity for older adults as presented in the CMOs’ report need to be better communicated so people understand that the proposed physical activity levels provide a long term goal. The challenge for professionals is to devise strategies that facilitate progress towards it.

- The greatest challenge facing activity promoters lies with finding strategies that can help attract older adults to activity initiatives and keep them attending and wanting more.

- All local initiatives will benefit from adopting an evidence-based approach incorporating recognised behaviour change theories in combination with consideration of local environmental conditions. This is best achieved through partnership working.

- Relatively inexpensive evaluation strategies can help fine tune recruitment strategies, programme improvement, and provide preliminary evidence of effectiveness.

Key recommendations

- Emphasis on strategies which help older adults gradually progress from low and very low levels of activity towards optimal health targets.

- Aiming at satisfying the three basic human needs of a) competence, b) autonomy, and c) relatedness, which are all threatened as we age, could provide a strong motivation for people to engage with a local initiative.

- Physical activity priority 1: Promote getting out and about offering opportunities in the local community.

- Physical activity priority 2: Target functional ability and independence for people in transition by providing structured and focussed exercise programmes in a range of centres and facilities.

- Physical activity priority 3: Make the active choice the easy choice with age-friendly modifications and adaptations of neighbourhoods.

- A local partnership with diverse membership and an embraced goal is vital for the success of any initiative.

- Recruitment is challenging and needs adoption of appropriate marketing strategies, constant evaluation and identification of effective recruitment pathways.
If we can devise and deliver programmes that successfully increase activity in later life and help prevent premature decline and disability, then we will have found one of the best buys in public health today. There are many gaps in the evidence with older adults, particularly cost-effectiveness data. Therefore some of our guidance and suggestions should be regarded as our ‘best guess’ advice.

However, there is a need and an opportunity to act now.
In 20 years’ time, nearly a quarter of the population in the UK will be aged 65 and over [4]. Older age brings greater threats of coronary heart disease, stroke, diabetes and cancers, as well as obesity. Gradual loss of physical function, cognitive function and onset of debilitating mental conditions such as dementia pose other serious challenges. Regardless of these threats, many of us will live into our 90s so at age 65 we may still have almost a third of our lives to enjoy. Finding ways of ageing well and enjoying a full, active and engaged life has therefore become a priority. Many older adults have already discovered the secret and enjoy the new opportunities offered for learning, achieving, getting fitter, volunteering and fulfilling work. But for public health benefit, for many people who do not have the fortune, skills or resources often required to take charge of their lives, greater provision and support is required. The increasing demands of this growing sector of the population means that proactive and cost-effective solutions are needed. This is echoed in the government’s report [5], drawing attention to the need to reduce health and social care costs through restructuring of services so that older adults are better supported to maintain independent and healthy lives.

a) New Public Health delivery

The new arrangements for delivery of public health through local authorities provide a great opportunity to review and upgrade provision for older adults. Many of the threats and challenges older adults are facing have their roots in local neighbourhoods and communities. Health and Well-Being Boards are now in a strong position to bring together in partnership the many agencies that can make life better for older adults. One of those challenges is to provide conditions and services that support them to lead active and engaged lives. There are lots of ways in which policy can help older people including better pensions, funding and structure of care, or better housing. However, a critical factor in staying independent as we age is to retain good health and both physical and mental function. Older adults are at high risk of prematurely entering a downward spiral of loss of physical function, loss of mobility and independence, increased isolation and earlier onset of mental and physical disease (see Figure 1).
b) What does physical activity offer?

Being able to continue to walk to shops, play with grandchildren and go on holiday make the difference between living and living well. Regular physical activity plays an absolutely critical role. It is a fact that not only does physical activity add years to life but it adds life to years and this is now backed up by a robust evidence base. In the past five years, comprehensive reviews of the evidence base for physical activity have been conducted to form the basis of physical activity recommendations or guidelines in the United States [6], Canada [7] and the UK [8].

Start Active Stay Active, the new UK guidelines, is the most recent document and was commissioned by all four UK Chief Medical Officers [3]. For the first time, this document provided specific guidelines for adults aged 65 and over as there was sufficient evidence to show that the needs of older adults were different to other adult age groups. The case will strengthen as more and more research is targeted at the older age group.

Already it is clear that regular physical activity has important preventive effects for the key physical diseases such as cardiovascular disease, stroke, type 2 diabetes and cancers of the colon and breast even into old age. Furthermore, the preventive effects for debilitating mental illness and deterioration through depression, dementia, Alzheimer’s and Parkinson’s disease become much more pertinent in this age group. Although the evidence is not yet as extensive as the other major diseases, over 40 prospective cohort studies show that being active into older age can reduce risk of subsequent dementia by around 20-25% [9].
Retaining physical function also becomes important to older adults, as loss of muscular strength at the rate of 2-3% per year and deteriorating coordination becomes more apparent, which in turn influences the ability to complete necessary tasks of daily living \[10\]. There is evidence that activity can also reduce incidence of falls in those at higher risk.

Table 1. Health Benefits of Physical Activity for older adults [6]

<table>
<thead>
<tr>
<th>Evidence for the health benefits of physical activity</th>
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<tbody>
<tr>
<td><strong>Strong Evidence</strong></td>
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<tr>
<td>Lower risk of:</td>
</tr>
<tr>
<td>• Early death</td>
</tr>
<tr>
<td>• Heart disease</td>
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<tr>
<td>• Stroke</td>
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<td>• Type 2 diabetes</td>
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<td>• High blood pressure</td>
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<td>• Adverse blood lipid profile</td>
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<tr>
<td>• Colon and breast cancers</td>
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<tr>
<td>Prevention of weight gain</td>
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<tr>
<td>Weight loss when combined with diet</td>
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<tr>
<td>Improved cardiorespiratory and muscular fitness</td>
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<tr>
<td>Prevention of clinical depression, dementia, and Alzheimer’s disease</td>
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<tr>
<td>Better cognitive function</td>
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<td><strong>Moderate to Strong Evidence</strong></td>
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<tr>
<td>Better functional health</td>
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<tr>
<td>Prevention of falls in those at high risk</td>
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<tr>
<td>Reduced abdominal obesity</td>
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<tr>
<td><strong>Moderate Evidence</strong></td>
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<tr>
<td>Weight maintenance after weight loss</td>
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<tr>
<td>Lower risk of hip fracture</td>
</tr>
<tr>
<td>Increased bone density</td>
</tr>
<tr>
<td>Improved sleep quality</td>
</tr>
<tr>
<td>Lower risk of lung and endometrial cancers</td>
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</table>

In addition to health-enhancing activity, there has been a great deal of recent interest in amount of time spent in sedentary pursuits, particularly those involving sitting for prolonged periods such as watching TV. A recent Australian study \[11\], of over 222,000 adults aged 45 and over concluded that prolonged sitting was associated with a 40% increase in subsequent mortality. Of particular importance, is that the effects are independent of volume of daily physical activity. Research is also emerging that sitting for long periods without getting up and moving around may also have poor effects on circulation, metabolic and
functional health [12, 13]. This suggests that we should be concerned about the health consequences of sitting too much, especially for long uninterrupted periods, as well as having low activity levels in later life. Making that regular cup of tea might be more important than we think!

The good news is that it seems it is never too late to experience benefit. Reduction in risk of premature mortality and new disease has been recorded in people in their late 70s and early 80s [14]. Physical activity programmes for older adults have been shown to improve mobility, walking speed, strength, and also cognitive abilities important to everyday living. This broad set of benefits should be set alongside the health and safety risks of taking part in graded physical activity for older adults being small. In contrast the price of not being active can be very high.

c) How active are older adults in the UK?

Not only are the benefits of physical activity clear, there is also plenty of scope for increasing the activity levels of older adults. While they have the most to gain, older UK adults have the lowest levels of physical activity compared to other age groups and fall well below the levels of physical activity recommended for healthy ageing [15]. Self-reported activity data from the Health Survey for England show that less than 30% of 65-74 year-olds and less than 15% of adults aged 75 and over reported any exercise or sport lasting at least ten minutes during the previous four weeks. Fewer than 10% of men and 5% of women aged over 75 met current physical activity recommendations [16]. Also it appears that older adults are not getting much activity in their daily routines. In Project OPAL (Older People and Active Living), physical activity and physical function was objectively measured in a diverse sample of 240 adults [1]. The 70-75 year old participants averaged 5500 and those over 85 years only 2000 steps per day (minimal daily movement usually produces 3000 steps). Almost all (98.7%) of those over 70 years did not meet recommended amounts of activity. This mirrors national statistics using accelerometry suggesting that less than 5% of men and women aged 65 and above achieve recommended levels of physical activity. Although it is true that some older men and women do manage to keep fit and active, they are the exception and clearly, there is vast scope for improvement for the majority.

Given these figures, we might expect that UK older adults also spend a lot of time immobile. In Project OPAL we observed that over half of participants spent 80% or more of their day being sedentary (mainly sitting down), that’s more than 11 sedentary hours per day. Strategies are clearly now needed to help older adults adopt and maintain a more active lifestyle and reduce the amount of time spent in sedentary pursuits, particularly if their sitting is uninterrupted for long periods of time.
d) Time for action

The array of benefits that activity can offer is amazing news for older adults. The low levels of activity currently seen offer feasible targets for change, with the potential for Health and Well-Being Boards to reduce health and social care costs through the promotion of physical activity. Older adults (those aged 65 and older) are the heaviest users of health care services, absorbing almost 60% of the £16.1 billion social care outgoings [17]. Additionally, the burden of supporting people to live in their homes with declining independence and mobility continues to increase.

Recent longitudinal data from the OPAL-Plus study showed that active older adults had fewer unplanned hospital admissions, fewer prescriptions, and were less likely to develop new diseases over the subsequent four to five years. This is the first time data of this kind has been available and is indicative of the potential savings that can be made if we promote activity in older adults [18]. Even small percentage reductions in numbers reliant on these services means that funds can be diverted to other important activities. This sentiment is reflected in the Government’s commitment to improving the health of the nation through the inauguration of Public Health England and the promise of protected funds for disease prevention at local level through the Health and Well-Being Boards. Given the array of health and well-being benefits that physical activity offers, it should have a prominent role in any local health improvement plan.

In summary

- The diverse package of established benefits of physical activity for older people,
- The current very low levels of engagement, and
- The rapid increase in the size of the older sector of the population who are living longer in a potentially infirm state

indicate that there is considerable scope for public health gain. Many experts would argue that programmes that are successful in helping adults from 65 years onwards improve or sustain physical activity and physical function into older age could offer one of the best value buys in public health today.
Section B: Physical activity guidelines for older adults

*Start active, Stay active* [3] was commissioned by the four UK Chief Medical Officers and provides comprehensive evidence-based guidelines for promoting physical activity for health. For the first time we have guidance specially designed for adults aged 65 and older. There has been less research investment in older adults and so the evidence is not as extensive as younger adults, leaving more gaps in our understanding. Most of what we know has emerged from research conducted on structured programmes of exercise to improve aerobic capacity, strength or balance and coordination. Less is known about the activities that are more likely to play a part in the lives of older people such as dancing, walking, gardening, and the incidental activity that forms part of regular daily routines such as shopping and visiting.

Based on the existing evidence, current guidelines suggest that physical activity programmes should aim to improve aerobic fitness, muscular strength, balance and coordination. The formal recommendations are featured in Table 2.

Table 2. UK Physical activity guidelines for older adults (65+ years) and examples of recommended activities (adapted from Start active, Stay active, DH, 2011)

<table>
<thead>
<tr>
<th>Guidelines</th>
<th>Examples</th>
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<tbody>
<tr>
<td>Older adults who participate in any amount of physical activity gain some health benefits, including maintenance of good physical and cognitive function. Some physical activity is better than none and more physical activity provides greater health benefits.</td>
<td>Short and light activity such as walking to the shops or strolling to a friend’s house can make a difference, particularly in those who are unfit and inactive. Getting started and building up volume of activity is the important goal.</td>
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</table>
| Older adults should aim to be active daily. Over a week, activity should add up to at least 150 minutes (2½ hours) of moderate intensity activity in bouts of 10 minutes or more – one way to approach this is to do 30 minutes on at least 5 days a week. | Moderate intensity physical activities will cause older adults to get warmer and breathe harder and their hearts to beat faster, but they should still be able to carry on a conversation. Examples include:  
  - Walking  
  - Ballroom dancing |
<table>
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<tr>
<th>Guidelines</th>
<th>Examples</th>
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| For those who are already regularly active at moderate intensity, comparable benefits can be achieved through 75 minutes of vigorous intensity activity spread across the week or a combination of moderate and vigorous activity. | Vigorous intensity physical activities will cause older adults to get warmer, breathe much harder and their hearts to beat rapidly, making it more difficult to carry on a conversation. Examples include:  
  ○ Climbing stairs  
  ○ Running |
| Older adults should also undertake physical activity to improve muscle strength on at least two days a week. | Physical activities that strengthen muscles involve using body weight or working against a resistance. This should involve using all the major muscle groups. Examples include:  
  ○ Carrying or moving heavy loads such as groceries or heavier garden work  
  ○ Activities that involve stepping and jumping such as dancing  
  ○ Chair aerobics |
| Older adults at risk of falls should incorporate physical activity to improve balance and coordination on at least two days a week. | Activities to improve balance and coordination may include:  
  ○ Tai chi  
  ○ Yoga |
| In order to assist in achieving energy balance and avoiding fat gain, older adults should keep active throughout the day through any form of movement but particularly walking. | Be conscious of finding ways of building activity into daily routines:  
  ○ Stand or walk when talking on the phone  
  ○ Walk around home when listening to an audio book |
| All older adults should minimise the amount of time spent being sedentary (sitting) for extended periods. | Minimising sedentary behaviour may include:  
  ○ Reducing time spent watching TV  
  ○ Taking regular walk breaks around the house, garden or street  
  ○ Breaking up sedentary time such as swapping a long bus or car journey for walking part of the way |
a. Interpreting the guidelines

The priorities for older people are not only to avoid debilitating disease but to stay pain free, maintain the capacity to get out and about, retain independence, stay engaged and make useful contributions to family, neighbours and society. The role of physical activity in daily routines and the tasks of daily living become more salient than earlier in life where activity was more likely to take the form of sports or exercise classes and aimed at fitness gain. When viewing the guidelines and evidence base therefore, the context of older people’s current lifestyles, needs, desires and current level of activity and fitness need to be carefully considered. Many people these days live well into their 90s. This 30-year age span means that we might expect that there is at least as broad a diversity in physical and cognitive function as we might expect between ages 30 and 60. For older adults, the range of functioning is broad and it is clear that age itself is a poor predictor of how well an old person is doing. Many 80-year-olds will be much more capable than some 65 year olds. Even with the low levels of activity and high levels of overweight seen in older adults, it is possible to find marathon runners, coastal walkers, ballroom dancers and many avid gardeners. These individuals contrast starkly with those who do not function well because of obesity, premature weakness and stiffness or dementia.

With these considerations in mind Start active, Stay active provides an important discussion on how guidelines and physical activity promotion services should be applied to groups of older adults [3]. Three broad groups based on physical capacity and current activity levels rather than age are described as the basis of programme design for activity promotion:

1. **Active older adults.** Those who are already active, either through daily walking, an active job and/or who are engaging in regular recreational or sporting activity. This group may benefit from general increases in activity or a specific activity to improve particular aspects of fitness or function as well as sustaining their current activity levels.

2. **Older adults in transition.** Those whose function is declining due to low levels of activity, too much sedentary time, and who may have lost muscle strength, and/or are overweight but otherwise remain reasonably healthy. National data indicate that this makes up the larger proportion of older adults and that they have a great deal to gain in terms of reversing loss of function and preventing disease.

3. **Frailer, older adults.** Those who are frail or have very low physical or cognitive function perhaps as a result of chronic disease such as arthritis, dementia, or very old age itself. This group require a therapeutic approach (eg. falls prevention programmes) as many will be in residential care.
b. Putting guidelines into practice

Older adults of today have not grown up with exercise as part of their culture. In contrast to taking advantage of more time for activity, they may feel that retirement is the time to take life easier and that they have earned the right to ‘put their feet up’. Careful thought and action will be needed to convince them that activity can be worthwhile for them, not just in terms of health and function but also for mental and social health benefit.

Given the existing low levels of activity and physical function in most older adults, moving towards the recommended amounts of activity should always receive priority over pushing too hard too early. The guidelines clearly state that doing more regardless of current activity level will provide important benefits. Bodies will adapt and improve as a result of the increasing demands of activity. In fact, some of the evidence indicates that the greatest gains are seen in moving from being very inactive to walking on a daily basis.

For maximum cardiovascular and metabolic benefits, the current evidence indicates that older adults need to achieve similar amounts of moderate intensity activity to younger adults (150 minutes, spread across the day). For the majority who are very inactive this will take some time to build up. So good progress towards this target should be recognised and celebrated and it is important not to put people off by asking too much too soon.

Although the guidelines suggest that it is possible to substitute vigorous intensity activity to achieve even greater fitness and health benefits in a shorter time commitment, this should be attempted only by those older people who have been very active for some time and who have a high level of fitness. They are likely to be regular brisk walkers or joggers or sports participants.

The guidelines now highlight the importance of activities that increase strength and balance. Although gains can be made by activities such as gardening, tennis, stair climbing, hill walking, cycling, and dance, systematic resistance exercise as part of an exercise programme will achieve this most efficiently. This suggests that opportunities to exercise in health and fitness facilities are likely to become more important as more older adults get attracted to the idea of this kind of activity.

An efficient way to maximise cardiovascular fitness, strength, balance, coordination benefits is to engage in exercise programmes that combine several activities twice a week.
Older adults will still gain health benefits from meeting activity guidelines even in the absence of reductions in body weight. Weight loss will be important for many older adults as they are the most overweight sector, but it should be addressed through a combination of healthier eating and increased activity. Because they may have reduced muscle mass, physical activity is particularly important for improving body composition through building muscle and at the same time reducing body fat.

Meet Jim (70 years old)

Jim is a married man who retired at 51. He takes part in many activities, both active and sedentary. His burning passion is basketball refereeing, which he’s done for 56 years. A game involves two hours’ continuous activity, much of which is running. To keep up his activity levels during the summer he has also found a summer league which he is now involved in. During the summer he occupies much of his time doing light gardening: mainly tidying and watering hanging baskets and pots in his small garden. He also hosts a couple of holiday tours a year, which are either walking or leading visits to gardens. He spends long periods of time sitting at his computer and in front of the TV watching sport but he breaks this up by doing light tasks around the house. Jim’s wife also ensures they get out for regular walks to visit their friends.

Meet Shirley (81 years old)

Shirley is a widow who lives alone and doesn’t drive. She kept working until the age of 76 and has been determined to keep busy and independent ever since. She has built up strong friendships and local support networks, particularly since she lost her husband. She finds purpose in helping others. During the week, she has a string of neighbours visiting her, to chat and for coffee or lunch. She gets out and about through visiting a friend in a nursing home, belonging to the local pensioners’ group and walking to weekly bingo. She regularly takes the bus with a friend to the shops, and usually chooses to take the stairs instead of the lift. Shirley does as much of her own housework as she can. Although her brother-in-law drives her to do a main weekly food shop, she pops out on foot to top up locally. When a local, chair-based exercise class closed because of poor attendance, she sought out a led walk. She has progressed from the ‘slow’ to the ‘fast’ stream, and she’s managed to get four friends to join.

“I say take advantage, because I might not be like that next year!”
SECTION C: What influences participation in physical activity in UK older adults?

Understanding the factors that limit activity or are associated with higher levels of participation may help identify and target groups who are in particular need of support. It may also be possible to identify barriers that can be reduced or nullified.

Although there is substantial evidence for adults in general, less is known about activity determinants in adults aged 65 and over. Many studies show associations only and so establishing cause and effect is difficult. Further, many of these studies rely on self-reported physical activity data which in older adults, suffers badly from poor recall. This is particularly true of the less remarkable daily or routine activities which make up the bulk of the total physical activity of older adults in the UK. Recent studies in the UK and beyond have used objectives measures (accelerometers/pedometers) of physical activity, and are providing more robust evidence on factors associated with daily physical activity behaviour in later life [19-21]. This research, accompanied by qualitative work (interviews/focus groups), indicates that physical activity in the older population is associated with a range of quite diverse factors such as health status, beliefs and motives, and characteristics of where older people live [22] (See Table 3).

Table 3. Barriers to and facilitators of daily activity in older people over the age of 70

<table>
<thead>
<tr>
<th>Personal</th>
<th>Barriers with high impact</th>
<th>Facilitators with high impact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Health problems</td>
<td>Positive perceptions of physical activity</td>
</tr>
<tr>
<td></td>
<td>No motive to be active</td>
<td>Established habits</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>Activity levels of people in own social network</td>
<td>Opportunities for social interaction</td>
</tr>
<tr>
<td></td>
<td>Negative perceptions of people in own social network</td>
<td></td>
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<tr>
<td>Environmental</td>
<td>Concerns for personal safety</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Poor bus services</td>
<td>Walkable amenities</td>
</tr>
<tr>
<td></td>
<td>Seasonal influences - Weather</td>
<td>Access to car or good public transport</td>
</tr>
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<td></td>
<td>Accessible locations for exercising</td>
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</table>

a) Socio-demographics

We have established that older adults are even less active than the rest of the adult population but physical activity also declines with age within the older age group. Older men on average are more active than older women. Level of educational attainment relates also
to levels of physical activity [19]. Activity is associated with financial well-being with more older men and women from the lowest wealth category being inactive (40%) than those in the highest wealth category (10%). It is also worth mentioning that the prevalence of men and women reporting a limiting longstanding illness is highest in the lowest wealth group and is less than half that level in the highest wealth group [23]. To summarise, low wealth status, low educational level, being older, and being a female contribute negatively to levels of physical activity.

b) Health, physical and cognitive function
Socio-demographic factors can be overridden by other important predictors of activity. Older people most frequently cite poor health as the leading barrier to physical activity [24]. Qualitative findings from the OPAL study demonstrated that health problems (pain, functional limitations, strength decrease, and loss of energy) were perceived as the barriers with the greatest impact on decisions to be active [22]. A period following acute illness, injury, or hospital admission seems to be particularly associated with longer term decline in activity function so offers a target for intervention. Also those who have higher previous levels of function and activity are more likely to survive and have shorter hospital length of stay [25]. Physical activity and physical function are closely related and two-way causality operates here. For example, loss of function through a bad fall or the pain resulting from arthritis in the knees will restrict activity. However we do know that long periods of inactivity also causes decline in function and that increasing activity can reverse it. Physical inactivity can therefore be the result of poor health and function but activity is probably the best tool for helping people avoid ill-health and decline in physical function.

c) Psychosocial barriers to physical activity
Older adults currently in their 70s and beyond did not grow up as part of the fitness and exercise for health movement. To the contrary, many will associate exercise with physical work. This may explain why very few engage in physical activity as a form of leisure [1, 15]. Most of the activity undertaken by older adults arises through frequent tasks such as shopping and visiting. Physical activity is therefore seen as a means to an end and an essential part of being able to perform independent tasks. Many believe that their daily activities provide sufficient exercise and that they should be taking it easier rather than doing more. Furthermore, many see intensive exercise as unsuitable for them as it produces sweating, higher heart and breathing rates, and can bring pain and muscle soreness. Several of these are symptoms of illness and this can present a profound barrier to engagement. It is a minority who see the potential of exercise as a pleasurable form of leisure, something that can help them feel psychologically and physically better, help them retain good physical function, and provide chances to socialise.
Some time ago the Allied Dunbar National Fitness Survey indicated that one of the main reasons middle aged to older adults say why they are not active for health is because they are not the ‘sporty’ type [26]. Few would describe themselves as athletic, fit or as an ‘exerciser’. This non-active identity partly arises because physical activity is associated with sport performance, athletic prowess, or a level of competence that they don’t possess. Clearly, this can operate as a substantial barrier to attracting older adults into an activity programme as they may see it as too demanding, or likely to expose their inadequacies. Furthermore, declines in strength and coordination, loss of balance and perhaps joint pain will have resulted in low levels of confidence and increased fear of injury and falling when exercising in physical activity settings and when getting out and about more often.

These attitudes and beliefs, accompanied by limited knowledge and experience, will prevent many older adults from approaching activity opportunities and make recruitment to programmes particularly challenging. In many cases they will be strong enough to cause many older adults to shy away from signing up to dance classes, special exercise clubs for older adults and may even contribute to them avoiding going out of the house. This reluctance is well supported by the service providers involved in AVONet, who stressed how difficult it was to persuade older adults to adapt their often very structured daily routines to incorporate any additional activity. They also suggested that improving understanding and knowledge about the benefits of activity may be important but would not be enough on its own.

d) Psychosocial facilitators of physical activity

Those older adults who do have a positive view of the benefits of activity and who feel confident and competent in their physical abilities are more likely to be attracted to activity programmes. This is an ironic but well known phenomenon in health promotion. It is more difficult to attract those who need the programme most. So great care has to be applied to the way programmes are publicised and constructed so that they are able to capture the imagination of these harder to reach groups. More is said about that under Promoting your programme in Section F. However, one of the most consistent findings in both research and practice is that older adults are motivated by the social aspects of physical activity. Good social networks are important for successful ageing. Older adults can be attracted to activity groups if they can spend time with existing friends and make new ones to the point that quite often the exercise may become secondary to a chat with friends over a cup if I said to them “Let’s go for a walk” then they don’t want to do it. If I said to them “Come and have a cup of tea and a cake” then they’re all here! (Female, 74 years)

My brother keeps phoning up and he says “Take things quiet,” he says. “You’re not a young man anymore.” (Male, 79 years)

My brother keeps phoning up and he says “Take things quiet,” he says. “You’re not a young man anymore.” (Male, 79 years)
of tea. Serious thought and planning needs to be put into the social provision of activity programmes, in terms of attracting and also retaining participants, more so than for other age groups.

e) Environment and neighbourhoods

In comparison to the general population, older adults live their lives in close proximity to their homes. The physical environment, particularly the characteristics of local neighbourhoods and communities, has been studied with regard to its influence on physical activity engagement [27, 28]. In one UK study conducted in 2007 it was reported that in areas where it was easy and enjoyable to get outdoors, older adults were more likely to be physically active, healthier, and more satisfied with life [21]. Much of the activity of older adults involves walking to shops and other services, catching buses and visiting friends and relatives, and perhaps taking a walk in the local park. Limited access to shops, services and infrequent and unreliable public transport reduce opportunity to be physically active [22].

This is confirmed in by participants in the OPAL study for whom physical activity was closely related to frequency of trips from home and from estimated time taken to walk to the nearest shops and services [1]. The more services they have close by, the more walking they achieve. Policies which bring or retain shops, services, facilities and healthy food outlets in neighbourhoods are therefore likely to encourage regular walking among older adults.

The physical environment, particularly the characteristics of local neighbourhoods and communities, has been studied with regard to its influence on physical activity engagement [29-31]. It has to be said that there is some conflicting evidence in this area. A recent systematic review of environmental influences on the activity of older adults showed little relationship between the two [32]. However, much of the environmental data originates from the US, where urban conditions can differ substantially from those in cities and towns in the UK.

Concern for safety and irregularity of bus services are seen as barriers to activity by many older adults. Traffic and walking conditions such as level pavements, kerbs, and benches may be important to some, but seem insufficiently powerful to show strong relationships with
activity. Areas of high deprivation where safety, crime, quality of streets and parks are inferior might be expected to have a strong influence on residents’ activity. However, although the OPAL study found that higher deprivation neighbourhoods had lower activity, it was explained by the lower health and functional status of the older people living there [19]. Interviews with older adults support this as conditions of the neighbourhood are seen by them to be less impactful on activity than health and functional status. There may be something about familiarity with neighbourhoods (most people have lived for a long time in the same place), which helps older adults cope with changes in environmental conditions. Many see problems with the neighbourhood as the norm and can be resilient to the challenges they present. However, there is increasing evidence that improvements in local neighbourhoods can stimulate increases in activity levels of residents [33].

Meet Mary (78 years old)
An active, resilient person (+) in a deteriorating environment (-)

Mary, 78 years old, is a married woman. She is more active now than when she was younger. She takes part in many activities, including keep fit classes, Walking the Way to Health groups and a wives group.

She reports that many shops have closed down in her neighbourhood and lists the closing of the post office as a big loss as this was an important point for socialising in the local community. She reports that she needs to walk far to get to shops, there is nowhere to socialise, the local park is not walking friendly anymore, there are very limited street crossings and there is a strong fear of youth gangs operating in her community.

“Many people moving in and out. I do not know half of the neighbours in this road now. Whereas, years ago, you could name all of them.”

“I will not walk off the pavement for them – I will walk through the middle of them – I’m not going to walk off the pavement for gangs of kids hanging about.”

Mary is (still) immune to environmental barriers due to strong self-determination and high levels of functional capacity.
Ultimately, physical activity as a behaviour depends on the level of motivation of the individual. It would be ideal if physical activity was such an integral part of our daily routines that we didn’t have to think about it. That used to be very much more the case when more of us walked or cycled to work on a daily basis, when jobs themselves were more likely to involve much more physical activity, and before technology took a lot of work out of how we run our homes. One approach is to try to put activity back into the day so that it becomes an automatic part of routine or a habit. Habits just make the behaviour happen (e.g. visiting the shop each morning to pick up a newspaper).

When we attempt to attract older adults to new activity programmes, we are asking them to make an effort to change their existing and in most cases well-established behaviours. This will trigger some thinking about what the potential benefits, and perhaps more importantly what the threats and risks of taking part might be. Decisions will depend on factors such as their personal understanding of what physical activity is, their past experiences with activity, and the potential benefits and demands that taking part might bring. Motivations vary considerably between individuals. Even for people who seem to be motivated at the outset, it can be useful to spend a little time exploring and consolidating the motivation to make their reasons for change explicit. This is what will keep them going when they face challenges, so the more salient and accessible you can make these motives, the better.

Even when the decision to give it a try is made, most people need a lot of support to make it happen. Making a clear and specific plan is a critical step. Planning for changes that are enjoyable, rewarding and easily managed within daily or weekly routines are much more likely to be sustained than changes which cause discomfort or embarrassment or that are difficult to integrate with the individual’s existing lifestyle. Furthermore, it can be helpful at this ‘planning’ stage to try to pre-empt any problems that might occur and think about how to stop this happening (making a ‘coping plan’ [34]).

The first hurdle is to motivate people to try and make a start. For many older people not having someone to go out with or feeling intimated by the notion of sports and exercise are powerful barriers that stop them from engaging with activity opportunities in their local community. In many cases, once the first steps have been made and people are satisfied with the activities they are involved with, they tend to stay in organised programmes.
Meet Rachael (80 years old)

Rachael, female, is 80 years old and frail. She walks with the help of a stick. At her last check-up her GP told her she should think about building more physical activity into her life.

Rachael was upset at her doctor’s advice. She thought about getting out, but she felt too tired to try by herself, it seemed too much of a challenge and she didn’t have the confidence to try this on her own.

One day a friend Joan, told her that she managed to get out most days and suggested they go out together, just to see how Rachael would feel. With her friend’s support, and taking her time, Rachael was able to reach the shops and meet up with another friend she hadn’t seen for a long time.

As a result, Rachael and Joan were invited round for afternoon tea and this has become a weekly event. Rachael still walks with a stick and with the support of Joan but also enjoys walking around her small garden and admits she now has more energy as well as enjoying the fresh air.

Table 4. Key themes / ideas from Rachael’s case

<table>
<thead>
<tr>
<th>Theme</th>
<th>Personalised example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement</td>
<td>(although not motivated) through GP</td>
</tr>
<tr>
<td>Action and support</td>
<td>through Joan, her friend</td>
</tr>
<tr>
<td>Maintenance</td>
<td>increased activity through routine and walking around her garden</td>
</tr>
<tr>
<td>Motivation</td>
<td>getting to the shops and tea with a friend</td>
</tr>
<tr>
<td>Challenges</td>
<td>self efficacy – too much of a challenge, concern at being alone</td>
</tr>
<tr>
<td>Rewards</td>
<td>friendship circle, fresh air and garden</td>
</tr>
</tbody>
</table>
However, even when the initial planning stages and the initial experiences are successful, most people need support to maintain their new activities. This is one of the biggest challenges for physical activity promotion – how to keep going? Ongoing engagement in physical activity requires constant reinforcement of motivation (e.g. experiencing pleasure associated with chosen activities or noticing the impact that activity has on mood, energy levels, sleep quality and other outcomes that are positive and meaningful to the individual).

Furthermore, the social, environmental and psychological influences (as identified in Section C) that prevent physical activity need to be addressed (and these will also vary considerably between individuals). So how do all these ideas fit together? How can we support older adults to get active and stay active?

a) Strategies for supporting motivation and behaviour change for use alongside physical activity programmes

Programmes and services have to be designed, with at least as much attention to social and psychological factors as aerobic fitness and muscle strength/endurance, balance and flexibility if they are to successfully attract and retain older adults. Sometimes we are so focussed on setting up a (technically) good programme that we forget about the critical issue of how to engage people in it.

Many politicians have become more interested in tackling smoking, obesity and nutrition and have realised that initiating health behaviour changes is challenging. The recent House of Lords report on health behaviour change, the formation of a special behaviour change section of the new responsibility deal and interest in ‘nudging’ people towards new habits are indicative of this interest [35].

An emerging body of behaviour change interventions aimed at promoting activity have started incorporating components of the Self-Determination Theory (SDT) [36]. The human needs element of this theory has particular resonance for older adults. It suggests that in order to build lasting behaviour change, it is important to show how the new behaviour (physical activity) can help satisfy three basic human needs. These are the needs for a) competence b) autonomy and c) relatedness. All three of these are threatened as we age. As our physical and mental capacities decline we are at risk of losing confidence and becoming more fearful. As we come to rely more on others for transport, shopping and other daily tasks, we can easily lose our feelings of control over our lives. With reducing capacities, we can also become more isolated and lonely in our homes and less able to make a significant contribution to others or society in general. Physical activity has a huge

1 For more on SDT see: (http://www.ehps.net/ehp/issues/2008/v10iss1_March2008/EHP_March_2008_All.pdf) [37].
amount to offer as it can help people retain or improve their physical and cognitive abilities and thus their confidence, retain independence and autonomy, and be part of other groups. SDT-based interventions have shown some preliminary evidence of increases in physical activity among people trying to lose weight, people who are depressed and those just trying to become more active [36].

b) Supporting lifestyle behaviour change

Reviews looking specifically at the strategies of behaviour change related to increasing physical activity with older people have found that incorporating social support, promoting self-efficacy, offering active choices, offering assurances of safety and positive reinforcement are associated with increased adherence to activity programmes. This evidence strongly indicates that behaviour change strategies need to be at the heart of every physical activity intervention and that approaches based on education alone (e.g. telling people how and why activity is important) are unlikely to be effective in initiating and maintaining change [38].

The process model of lifestyle behaviour change (see Figure 2) might be useful in planning a physical activity programme for older adults [39-42]. This model recognises that different issues need to be considered at three different stages of behaviour change – initial motivation (deciding to get started), action (making plans and engaging with new activities) and maintenance (keeping the activity going). For a full description of the components of each stage go to page 30.

The model implies that behavioural support should be provided alongside physical activity programmes and that different strategies should be used as the programme progresses. The following sections provide a step-by-step practical guide to using this model in everyday practice.

Figure 2. The Process model for supporting lifestyle behaviour change [38, 40]
c) Processes and selection of techniques

The processes shown in Figure 2 represent what an older adult needs to do to get motivated, to be more active and make activity a daily habit. Working with older adults, we need to consider what might influence the success of this process and how easy it is to modify some of these influences. Identifying them will enable us to select the right behavioural change techniques for our participants.

There is a wide choice of techniques that we could choose from to apply in each of the three stages but what we choose depends on:

- The resources available
- The specific cultural or socio-economic characteristics of our participants
- Their health status and level of physical function
- The organisation/setting that we want to deliver a physical activity programme (e.g. leisure centre, community centres, primary care)

d) Examples of Behaviour Change Techniques (BCTs)

Building experience by trial and error

This could involve a small experiment to change one simple behaviour over the next week (e.g. walk instead of driving to the local shops). Review how things worked with subsequent discussion.

Using information exchange techniques

These include the reflective listening and the ask-tell-discuss techniques. These are active learning approaches which encourage your participants to process new information in relation to their own existing knowledge/experience.

- Reflective listening

  Reflective listening is the most important skill for building empathy (getting people on your side, or more accurately, getting you on their side). Good-quality reflective listening involves being interested in what the person has to say and respecting the person’s inner wisdom.

  Reflections draw out more information than questions do. It is worth remembering that almost every piece of advice you might offer has already been thought about and rejected by your participants. However, motivated participants will work out how to overcome their own barriers.
A reflective listening response is a statement, a guess as to what the person means.

For example:  “So you haven’t done a lot of activity in the past.”

“So you haven’t done a lot of activity in the past?”

Reflective statements not only help you to establish a good rapport with the participant, but they allow you to guide the conversation to some extent. It is also a good way to cut people off if they are going off on a tangent. Summarise what they said to show that you are listening and then ask another question to get them back on track!

**Toolbox: Reflective listening**

Statements work better than questions. You may be using:

- Repeating
- Paraphrasing
- Reflecting their feelings
  
  E.g. “it sounds like you are quite angry/scared/excited about this” etc

- Double sided reflection
  
  E.g. “so, on the one hand you feel…., but on the other hand you feel….”

- Amplified reflection
  
  E.g. “so you’re saying that you will never stop smoking”

Similar to the open ended questions used to start a conversation, the common word in these reflective statements is “**you**”.

**Ask – Tell - Discuss**

**Ask** – open ended questions – we have provided some to help you (see box over the other page)

**Tell** – providing information – about what’s on, what would count, who could assist your participant, answering questions, clarifying ideas

**Discuss** – which would be realistic? How would you go about it?

Which of these choices appeal to you?
These open ended questions are merely a starting point as you might want to change the words to suit yourself, but they have some important themes in them.

- **Importance question**
  How important is being more active for you?

- **General question** (asks what and how much they are doing already)
  Do you/are you able to get out and about at the moment to places that you enjoy?

- **Barriers question** (clearly allows worries and concerns to be expressed)
  Is there anything that concerns you about increasing your activity?

- **Feelings question** (the possibility of sharing successful and enjoyable experiences)
  Do you have a favourite walk or particular place you like to visit?

- **Anticipation question** (might lead to anticipation of reasons and motives for activity)
  Imagine - if you did get out more, what difference might it make to you and in what way?

These open ended questions lead to a wide range of responses and they encourage a participant to share their own thoughts and feelings. Even though you may start with one of the positive questions, it is more than likely that you will also find yourself talking about barriers and encountering difficulties.

e) Navigating the process model of lifestyle behaviour change

**Stage 1: Motivation**

![Figure 3. Stage 1 of the process model of lifestyle behaviour change](image-url)
People may not be ready to increase their activity because they don’t perceive it to be important and/or they are not confident that they can do it. We need therefore to help people build their motivation by exploring and enhancing importance and confidence.

Setting the agenda

Where to start from and what to target to achieve this are issues that we need to discuss with older people who are thinking of becoming more active. What really matters is supporting people to get out of those four walls of their house. Different things will motivate people in different ways.

Meet Susan (65 years old)

Susan, female, age 65, is a small woman and has never been very strong, but she has always loved gardening. She had become very depressed and bored after she retired from her job and moved into a sheltered housing scheme. She began to sleep a lot and rarely did any activity. She missed her garden since she moved to a sheltered home and did not know what to do with her time. Susan’s friends began to worry about her and shared their concerns with the housing scheme activity co-ordinator, Helen. Helen suggested that Susan got involved with the new garden plot very close to the sheltered housing scheme where she was living. Susan was thrilled and was determined to make it the best garden on the block.

Every day she gets out there digging, weeding, planting, and trimming and her energy levels have improved. But what was she going to do in the winter? One of the other gardeners told her about a walking program and asked her to join it with her. Through her new friends she also found out about a Tai Chi class, she now loves it so much she does it summer and winter. Getting physically active changed Susan's life. She has a whole group of new friends, lifted spirits and she feels stronger and more secure.

Table 5. Key themes / ideas from Susan's case

<table>
<thead>
<tr>
<th>Theme</th>
<th>Personalised example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement</td>
<td>through friends and housing scheme co-ordinator</td>
</tr>
<tr>
<td>Action and support</td>
<td>through housing scheme coordinator</td>
</tr>
<tr>
<td>Maintenance</td>
<td>increased activity through routine additional activities</td>
</tr>
<tr>
<td>Challenge</td>
<td>loss of purpose after retirement and depression</td>
</tr>
<tr>
<td>Motivation</td>
<td>revisiting a passion in her life</td>
</tr>
<tr>
<td>Rewards</td>
<td>involved in gardening, friendship circle and access to other activities</td>
</tr>
</tbody>
</table>
Meet David (72 years old)

David, male, age 72, was very active, walking and keeping fit until his wife died. Then his life changed. He began to sit around, read, and watch TV - after all, living alone after so many years of being married, he could please himself and as he was retired, perhaps it was time to take it easy. After a while, David found himself getting very sluggish and stiff. Often he found himself staying in bed quite late and yet he was still tired.

"Just because you are living alone, that doesn't mean you have to sit around all the time," his friend Peter told him. "Your body needs to move to live. Why don't you come with me to the leisure centre for a swim, just to get out".

David knew he needed to do something and decided to take up Peter’s offer, but when they got there, he saw the information about the off peak special rates for older people in the gym. That was what David wanted to do and Peter joined him. A fitness instructor at the gym helped him with a program that would build his strength and endurance as well as increase his flexibility. At first, David found it hard work. His muscles were out of shape, but he kept at it. In addition to Peter, he has found some buddies his own age and they encourage each other on the stationary bikes and on the weight machines. His energy has improved and he no longer feels sluggish and tired.

Table 6. Key themes / ideas from David’s case

<table>
<thead>
<tr>
<th>Theme</th>
<th>Personalised example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement</td>
<td>through a friend</td>
</tr>
<tr>
<td>Action and support</td>
<td>getting out and trying something, found something else</td>
</tr>
<tr>
<td>Maintenance</td>
<td>support by Peter and other participants</td>
</tr>
<tr>
<td>Challenge</td>
<td>loss of purpose after loss of wife</td>
</tr>
<tr>
<td>Motivation</td>
<td>needed to do something, fill part of a hole in his life</td>
</tr>
<tr>
<td>Rewards</td>
<td>feeling better and back out in the community with others</td>
</tr>
</tbody>
</table>

It is important therefore to allow our participants to choose the agenda that we will discuss with them. **Being able to set their own agenda is very motivating!**
Making a decision to change

Most people face ambivalence when they consider change. They think of the perceived costs and benefits of changing or not changing.

It is important to explore the pros and cons with them to help them identify the most important advantages and barriers that block them from taking the decision to get out and about.

What can you do? The simplest way is to draw a vertical line down to a piece of paper. Write down the pros and cons of change on either side of the line.

Table 7 (see following page) gives you an extensive list of possible advantages and challenges your participant might talk about when you discuss this with them.

Remember!
People decide to change only when they see the advantages outweighing the disadvantages!
<table>
<thead>
<tr>
<th>Advantages</th>
<th>Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical</strong></td>
<td></td>
</tr>
<tr>
<td>Be healthier and live longer</td>
<td>Get tired</td>
</tr>
<tr>
<td>Sleep better at night</td>
<td>Maybe get injured</td>
</tr>
<tr>
<td>Be in shape</td>
<td>Might overdo it</td>
</tr>
<tr>
<td>Get out and about more</td>
<td></td>
</tr>
<tr>
<td>Have strong muscles and bones</td>
<td></td>
</tr>
<tr>
<td>Stay at or get to a healthy weight</td>
<td></td>
</tr>
<tr>
<td>Look good, feel better</td>
<td></td>
</tr>
<tr>
<td>Less tired, more energy, more alert</td>
<td></td>
</tr>
<tr>
<td><strong>Lower risk of</strong></td>
<td></td>
</tr>
<tr>
<td>Heart disease and Stroke</td>
<td></td>
</tr>
<tr>
<td>Type 2 diabetes</td>
<td></td>
</tr>
<tr>
<td>High blood pressure</td>
<td></td>
</tr>
<tr>
<td>High blood cholesterol</td>
<td></td>
</tr>
<tr>
<td>Dementia</td>
<td></td>
</tr>
<tr>
<td><strong>Emotional</strong></td>
<td></td>
</tr>
<tr>
<td>Feeling more alert</td>
<td>Other things I’d rather do</td>
</tr>
<tr>
<td>Enjoy myself and have fun</td>
<td>Feel uncomfortable while exercising</td>
</tr>
<tr>
<td>Feel better about myself</td>
<td>Not very good at it</td>
</tr>
<tr>
<td>Less stressed</td>
<td></td>
</tr>
<tr>
<td>Less depressed</td>
<td></td>
</tr>
<tr>
<td><strong>Social</strong></td>
<td></td>
</tr>
<tr>
<td>Able to be more active with family</td>
<td>Spend less time watching TV with</td>
</tr>
<tr>
<td></td>
<td>the family</td>
</tr>
<tr>
<td>Be with friends or meet new people</td>
<td>Not spending time with family/friends</td>
</tr>
<tr>
<td>Play with the grandchildren without</td>
<td></td>
</tr>
<tr>
<td>getting tired easily</td>
<td>No-one to go with</td>
</tr>
<tr>
<td><strong>Financial</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Have to buy training shoes and</td>
</tr>
<tr>
<td></td>
<td>clothes</td>
</tr>
<tr>
<td></td>
<td>Have to buy a membership in leisure/fitness centres</td>
</tr>
</tbody>
</table>
How important is this to me? We need to explore how important it is to our participants to become more active. A very good way to start the importance discussion is to use the “importance ruler”. See the simple steps to use it in the toolbox below.

**Toolbox: Importance review**

a. Ask your participant: On a scale of 0 (not important at all) to 10 (extremely important), how important is it to you personally to increase your physical activity? What number would you give yourself?

<table>
<thead>
<tr>
<th>Not important at all</th>
<th>Extremely important</th>
</tr>
</thead>
<tbody>
<tr>
<td>0----1----2----3----4----5----6----7----8----9----10</td>
<td></td>
</tr>
</tbody>
</table>

b. Ask your participant: “Tell me why you put yourself here at 6 on the scale and not on 3?” or “What would help you to move from 6 to 8?”

This is a great way for people to start thinking about change, how important is to them and what support they would need to get to achieve this goal.

How Confident am I? Sometimes we might also assume that people are reasonably confident that they can change. That might not be the case. You need to ask how confident your participant is to increase their physical activity. Similarly to importance, a very good way to start the confidence discussion is to use the “confidence ruler”. See the simple steps to use it in the toolbox below.

Using these four steps – setting the agenda, identifying pros and cons, and exploring importance and confidence will help you to evaluate how ready to change your participant is.

**Toolbox: Confidence review**

a. Ask your participant: On a scale of 0 (not confident at all) to 10 (extremely confident), how confident are you that you could increase your physical activity? What number would you give yourself?

<table>
<thead>
<tr>
<th>Not confident at all</th>
<th>Extremely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>0----1----2----3----4----5----6----7----8----9----10</td>
<td></td>
</tr>
</tbody>
</table>

b. Ask your participant: So, what do you think it would take to move you from a 2 to a score of 3 or 4?”

c. Ask your participant: “Looks like you’re pretty confident already - why so high?”

d. Ask your participant: “Tell me why you put yourself here at 5 on the scale and not on 7 ...?” or “What would help you to move from 5 to 7?”
Meet Arun (74 years old)

Arun, male, is 74 and has angina. He was sedentary and his doctor was clear that being physically active would be really helpful. His first reaction was fear that any activity would bring on his angina pain or even a heart attack. Arun had joined a local health walk programme, the instructors and other participants made him feel welcome, but after 5 weeks, Arun left, mainly because the walks started quite a way from his house and the pace was too quick for him.

Arun was talking about this to his close friend Gurpreet one evening at the Temple. Even though he had dropped out of the walking group, he still knew he should be doing something. Gurpreet suggested that Arun could join him at his allotment a couple of times a week and not only could he walk there in his own time, and at his own pace, but also muck in at the allotment as well.

After a couple of months, Arun was feeling much more confident and had started to get together with Gurpreet a few times a week to go for a walk and a lunch out each Friday. Arun finds himself taking the stairs instead of the lift in his flat, and he no longer gets so tired doing simple jobs around the flat.

Table 8. Key themes / ideas from Arun’s case

<table>
<thead>
<tr>
<th>Theme</th>
<th>Personalised example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement</td>
<td>through GP and followed up with friend Gurpreet</td>
</tr>
<tr>
<td>Relapse / drop out</td>
<td>had made a start but too difficult to sustain at that time</td>
</tr>
<tr>
<td>Action and support</td>
<td>through Gurpreet his friend</td>
</tr>
<tr>
<td>Maintenance</td>
<td>increased activity through additional walking and friendship</td>
</tr>
<tr>
<td>Challenge</td>
<td>concern with impact of angina and somewhere more convenient</td>
</tr>
<tr>
<td>Motivation</td>
<td>to improve his mobility</td>
</tr>
<tr>
<td>Rewards</td>
<td>increased confidence, everyday jobs easier, weekly lunch out</td>
</tr>
</tbody>
</table>
Stage 2. Action

Figure 4. Stage 2 of the process model of lifestyle behaviour

Making an action plan. Having a clear plan of how your participant will go about making changes to their lifestyle will help them achieve their goal a lot more easily. The action plan acts like a kind of map. It will help them focus on where they want to be and how they are going to get there. To create an action plan follow the steps below:

**Toolbox: Making an action plan**

**Step 1:** Ask your participant to record the main reasons for wanting to make changes.

**Step 2:** Ask your participant to record their goals: Use “SMART goals” to help them focus their ideas. SMART goals are Specific, Measurable, Achievable, Realistic (to them) and Time-specific (e.g., Choose/decide on what action(s) you are going to take and set a time and date when you are going to start).

**Step 3:** Help them to identify someone who can support them (like friends, family, or partners) achieve their goals: That could be someone who will also make changes alongside them.

**Step 4:** Support them in developing coping strategies: Ask them to identify things that might stop them from succeeding and invite them to think of ideas for overcoming each of these barriers: It is much easier to plan this in advance than to try to deal with the challenge when it occurs.

**Step 5:** Ask participants to think about what else might help them to make it easier (e.g. talk to a friend or family member about their plans).

**Step 6:** Prompt self-monitoring of physical activity (e.g. step counts, activity diaries). Self-monitoring is the single most powerful behaviour change technique that we know of.
Share these ideas with your participant to assist them with goal-setting:

- It is best to choose physical activities that you find enjoyable. It's your decision, so why not choose something you like?

- **Keep it simple** – if you know there is something you enjoy doing, do more of it!

- Building physical activity into a **daily routine** can be as simple as going outside and walking around the block, or getting off the bus a stop earlier and walking the last few hundred meters to wherever you are going.

- Remember that it is good to try to make it moderate, although of course any **increase in activity** is good for your heart!

- Another way of looking at this is to **think of the time you spend sitting down**. How might you be able to reduce the amount of sitting down time?

- Physical activity **does not have to be expensive** or need a lot of equipment or clothing or strenuous gym sessions; for example, one of the cheapest and simplest activities is walking.

- Of course, some people love the gym, so that is also fine if it's what you like to do, but that's a big change. **Think small at first.**

**Reviewing progress – how did it go?**

Try to use every opportunity to review participants’ progress and goals, especially in the early stages of participation and soon after the first steps have been taken.

Meeting to review how the experience went will reinforce successful behaviours and experiences and point towards difficulties that may need assistance. Success assists in building self-efficacy and self-esteem.

**Focus on success as well as challenges**

We are all motivated by good feelings about ourselves and our bodies, the activity and our successes. So it is important to provide opportunities for participants to identify, recognise and register those positive feelings:

- What was the most enjoyable thing about being out and about last Tuesday?

- What do you specifically remember about the experience (e.g. the weather, some flowers in a garden, special offer in the shops, new owners at the newsagent?)
• How did you feel by the time you got home? (e.g. pleased to have succeeded, was worth the effort, surprised how easy it was, my achievement)

• Was there something you could have done differently? (e.g. change the route, go at a different time of day)

• Explaining that it is normal to have setbacks and/or to make several attempts in order to succeed. The important thing is to be able to learn from your experiences

• Identify barriers to success (what stopped you from succeeding?)

• Elicit possible solutions to overcome barriers (problem-solving)

• Review goals and action plans to take into account the above problem-solving activities (how could you do things differently in order to succeed?)

Stage 3 - Maintenance

The greatest gains for older people come when their initial actions and early experiences become regular habits. Even through at this stage participants have begun to adopt a more active lifestyle, they will require support to maintain the change. Repeat the Review progress as stated above.

Listen reflectively to your participants’ comments and probe for information about their successes and any reasons why their action plan may or may not be working for them.

Try to always look at ways of providing positive reinforcement even if progress is slow and seems to be difficult. Finally, focus on:

Planning for the future – Explore with your participants any anticipated obstacles that might occur and affect their action plan. Discuss with them what the obstacle is and whether the action plan needs to be modified.

Figure 5. Stage 3 of the process model of lifestyle behaviour change
The evidence-base on what are the most effective approaches in increasing physical activity in older adults is in the early stages of development. However, recent reviews have demonstrated that there are features of physical activity interventions targeting older adults that help them be effective [43]; see the box below.

**Promising interventions:**

- Encourage older adults to get out and about and try a variety of activities in both group and individual settings
- Incorporate a range of exercise modes including aerobic, strength, balance and flexibility components
- Provide older adults with the opportunity to attend group classes as these classes offer additional important social well-being benefits
- Provide older adults with ideas and instructions of how they can continue being active outside a formally arranged exercise programme
- Provide physical activity sessions and lifestyle counselling or education components
- Target individual tailoring and setting of personalised activity goals and offer older adults training in simple methods of self-monitoring. Pedometers seem to be a cheap, easy to use and motivational method for self-monitoring
- Provide participants with information about activity opportunities in the local community and how to get the most out of exercise at and from home
- Engage older people in the design process of new initiatives or the evaluation of existing schemes and ensure that their contributions are incorporated in programme design/restructuring

One key finding in physical activity interventions literature is that a range of different approaches seem to be equally effective when promoting physical activity with older adults [44]. That is not surprising given the diversity of older age in terms of social backgrounds and physical capacity. Once older people are engaged, they tend to adhere to physical activity programmes at least in the short term (up to 12 months). The challenge of most community programmes is therefore to find effective strategies of attracting and retaining older people (see section F for marketing and delivering activity initiatives).
a) Aspects to consider when selecting the types of programmes to be delivered

- **The contribution of programmes to well-being and quality of life of older adults**

  The International Council on Active Aging has developed a 6-dimensions wellness model including the emotional, intellectual, vocational, social, spiritual, environmental, and physical well-being (http://www.icaa.cc/activeagingandwellness/wellness.htm; See Figure 6). Local decision makers could examine which dimensions of well-being their existing or proposed initiatives target and identify ways to maximise the contribution of these initiatives on participants' well-being.

- **The type and focus of promoted activities and their contribution towards meeting the UK physical activity guidelines**

  Does the initiative provide older people with opportunities for moderate intensity physical activity, strength exercise, or is it aimed at enjoyable leisure? (See section B for detailed presentation of physical activity guidelines).

- **The current physical activity and functional ability levels of the target population**

  Different approaches are required for people with different levels of ability. The British Heart Foundation National Centre for Physical Activity and Health adopted the three groupings of older adults as presented in the UK physical activity guidelines - **the actives**, **the older adults in transition**, and **the frail older adults** - and has developed a series of guidance documents which provide important information about what approaches are needed for each group (http://www.bhfactive.org.uk/olderadultsguidelines/index.html). For the actives and the people in transition, both groups still living independently in the community, a recent document [45] particularly focuses on identifying evidence-based ways to enable them to continue living independently. For frail older people, with severely compromised levels of functional ability, targeted programmes such as chair-based exercise or falls prevention are recommended. Many frail older adults live in residential care or nursing homes and efforts to increase their physical activity need to consider the needs, characteristics and the influence of the particular environments in which they live [46].

- **The cost and the cost-effectiveness of the initiative**

  We are all aware of the need to establish that our programmes are the best way to spend available resources. However, as with other contemporary health challenges such as
obesity or mental illness, the evidence base on cost-effectiveness is weak. We do know that inactivity is expensive. In developed countries, physical inactivity accounts for 1.5% –3.0% of total direct healthcare costs. In 2006/2007, £900 million was spent in the UK on ill health related to physical inactivity [47]. Unfortunately, recent systematic reviews have shown inconsistent results regarding the cost-effectiveness of physical activity interventions [48].

Collecting data regarding the cost-effectiveness of physical activity interventions is crucial if we want scarce Public Health resources to be prioritised and allocated to physical activity promotion. Although full economic analyses are expensive and complicated, there are some relatively simple ways of providing basic cost data for interventions which are addressed in Section F.

The ultimate decision about what will be delivered, when, where, and how, lies with the local decision makers who will need to evaluate the current local provision, the characteristics and needs of the local environment and the availability of relevant resources.

The good news is that there are many and diverse ways to promote active ageing effectively.

b) Priorities in approaches to delivering physical activity programmes

The following section provides recommendations about prioritising some of these approaches and examples of how they could be put into practice. At the end of this section, the best bet solutions identified during the AVONet activities will be presented.

**PRIORITY 1: Promote getting out and about**

The impact of daily trips outside home on total levels of physical activity has been highlighted in recent UK studies investigating the levels and patterns of physical activity of older people [1, 20]. Frequent trips outside home are related to better physical function and physical independence [49]. These findings led to the inclusion of the “be active daily” recommendation in the UK physical activity guidelines targeting older people. During trips outside home, people accumulate most of their total daily activity and more specifically most of their moderate intensity activity, important for getting closer to reaching the target of 150 mins of moderate activity in a week.

A trip outdoors each day by foot or bicycle is associated with an estimated extra 20 minutes of daily walking and 13 minutes of moderate to vigorous physical activity [1]. Be active daily [3].
Local decision makers can help by identifying and facilitating increases in activities that are typical of older people’s lifestyles, and that provide them with reasons and purposes to want to get out and about.

The next section offers some suggestions for increasing the number of daily trips:

❖ Providing activities/initiatives that focus on social participation, fun and community engagement

Older people very often report that either they do not have anyone to go out with or they do not have the motive to be more active [20, 22]. Although health seems to be one of the most important worries and barriers to physical activity participation, accumulating evidence supports the argument that promoting solely the health benefits of physical activity might not be the best motivational strategy [50]. It is therefore justified to support programmes that are not directly designed to increase physical activity but which encourage older adults to engage more with their community [51]. Physical activity increases can be encouraged through such programmes but is also likely to increase simply by being out and about.

❖ Focussing on local community initiatives which can capitalise on social networks and enlist social support

Walking is a convenient and free form of activity that can be incorporated into everyday life and is sustainable into older age [52, 53]. However, average levels of walking in older adults are well below the amounts recommended for health maintenance. A range of interventions have been employed to increase walking levels in older adults including behavioural change, pedometer and led walking groups interventions. Walking programmes involving use of individual counselling, telephone contact, and group-based approaches have been successful in increasing time spent walking in older adults and should be promoted [53]. Supporting participation in local walking groups could positively influence both physical and mental well-being of older participants.

There is growing international acceptance of the notion that involvement in the creative arts can be beneficial for well-being and health. Dance in its variety of forms can appeal to a wide range of individuals, and classes can be held in convenient settings that do not require much expense or equipment. Older adults may have had previous positive experiences of dance and so this may be an approachable form of exercise [54]. Although rigorous evaluation of dance initiatives in the community is still lacking, dance has been found to significantly improve bone-mineral content, aerobic power, muscle strength, muscle endurance, muscle power, balance, and gait speed. Dance also provides an opportunity for
social interaction, incorporates a mind-body approach which is desired by older adults (AVONet focus group data) and has high attendance rates [55, 56]. Although still in its infancy, emerging literature provides some positive preliminary evidence about the positive impact of **singing groups** on older people's well-being [57]. Singing groups offer opportunities for enhancing psychosocial health of older people who would not otherwise participate in physical activity initiatives. The De Haan Centre focuses on the impact of singing and health in older adults [58]. In South West England, the Goldies Charity, targeting the in transition and frail older people have introduced functional movements in their singing sessions to support maintenance of mobility and independence among their participants. These initiatives are very encouraging as, if effective, they could have significant health and wellbeing impact on groups of older people who otherwise would be very difficult to persuade to participate in exercise programmes. They could also provide a social group base for physical activity initiatives such as health walks or singing in the countryside.

**Volunteering is an accepted and valued activity that is growing in popularity for older people [59] and which tends to remain stable until at least middle-old age (mid 70s) [60].** A wealth of longitudinal evidence supports its value to the volunteer in terms of mental wellbeing, quality of life, self-esteem, protection against depression [60-63], moderated or delayed mortality and increased social connectedness [64]. A review of the involvement of **older adults as peer activity leaders** indicated that this is a promising approach [65]. The People Exercising Program disseminated a community-based strength programme for older adults through leadership training of peers and health fitness professionals through a certification workshop. The study showed that training a lay peer as an activity leader to deliver a community exercise programme was as successful as leadership provided by health fitness professionals. Over time there was increasing interest from programme participants in becoming peer leaders themselves indicating possible sustainability [66]. The “Someone Like Me” programme was developed as a partnership between Later Life Training, the BHF National Centre for Physical Activity and Health (BHF NC) at Loughborough University and Age UK. “Someone Like Me” recruits volunteer senior peer mentors who act as positive role models to older adults and provide information and social support, aiming to help them to become more motivated towards participation in physical activity. The mentors are trained in motivation, communication techniques and support strategies. To date, the Someone Like Me programme has reached over 12,000 older people and has provided training to over 40 local partnerships nationwide.
Resources and funding are often limited within community groups and so a feasible approach may be the use of volunteers to create a peer-led programme. A peer-led approach to physical activity promotion and delivery has been successful in community settings and has potential to be far-reaching within a community. Peer-leaders are positive role models who can provide effective communication and empowerment to older people. Peer-led approaches have the potential to be cost-effective and sustainable.

Example of current on-going research employing Priority 1 recommendations

An important part of the AVONet brief was to synthesise several different forms of evidence from published evaluations to the views of older adults themselves about best bet approaches to physical activity promotion for older adults. The following box provides an overview of a model developed in relation to Priority 1 which was submitted for a two-year pilot study and funded by the Lifelong Health and Well-being Initiative-3.

Project ACE: Active, Connected and Engaged neighbourhoods

A pilot study of a peer volunteering intervention for promotion of active ageing in the community

Project ACE is a theory-driven, low cost, pragmatic intervention using peer volunteering support to promote active ageing. The aim of this pilot study is to establish the feasibility of delivery and acceptability of the intervention and research methods needed to conduct a full-scale trial. In a randomised controlled pilot study, 54 retired older adults were recruited from two neighbourhoods in Bristol, either as volunteers (n=15) or intervention recipients (n=39). Recipients were randomised to either one-to-one support by a peer volunteer or a waiting list control group. Based on an adapted version of the Health Action Process Model (see Section D for detailed description of the model), the intervention targeted motivation, action and maintenance. The peer activators provided participants with support and a source of confidence and re-assurance during their initial efforts to become more active locally.

Following a one-to-one approach the activator and participant met regularly during the first month and they explored motives and confidence to get out and about, leading to the preparation of an action plan with participants choosing activities/initiatives that they would like to explore. In the action stage, the activator and participant visited some of these initiatives together, exploring a range of local opportunities. After a number of visits, the participants started attending activities on their own without the presence of the activator.
In the maintenance stage, the activator continued monitoring the participant’s involvement in local programmes, discussed with them their activity plan, barriers and motives and provided them with further information for local initiatives. Activators were trained to present physical activity as an outcome of getting out and about, not as the main purpose (more involvement with the local community will lead to more daily activity). That message might be more appealing to many older adults who either do not see themselves as “exercisers” or they are worried about whether their health status allows them to participate in exercise programmes.

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**Figure 7. Project ACE model**

**Project ACE early results and impact**

Early results indicated that ACE promotes and enhances key motivational processes. The preliminary positive evidence of the acceptability and feasibility of Project ACE led to the official adoption of the intervention by LinkAge, a UK organisation targeting older people (www.linkagebristol.org.uk). The ACE research team supports LinkAge in managing the existing volunteer activators, recruiting new volunteers and participants and planning to extend ACE into new geographic areas. Project ACE developed a theory-informed and grounded intervention that has potential for generalisation throughout the UK. The pilot study results and the on-going collaboration with the community provider will inform the planning of the definitive effectiveness and cost effectiveness trial of the ACE intervention.
Maintaining independent living is one of the most important contributors to quality of life for older people and physical inactivity is one of the strongest predictors of future physical disability. Increased physical activity is associated with a lower risk of physical disability [67]. Of the 6,200 older persons free of baseline disability in the longitudinal EPESE cohort study, those in the lowest tertile of regular physical activity were 1.8 times more likely to develop problems with Activities of Daily Living (ADL) or mobility-related disability over four years than those in the upper tertile [68]. New data from the five year follow-up OPAL-Plus study show that the mean annual decline in lower limb function and steps taken per day in people with mean age of 78 years at baseline was 3%. This represents 15% decline over five years. This decline is likely to accelerate and place large numbers of older adults in premature mobility disability. For this reason programmes that can delay or reverse this decline are likely to offer the best public health benefit. This is because the in transition adults comprise the largest segment of the older adult population moving slowly from a state of independence to that of dependence (See Figure 8).

![Sedentary and low activity habits](#)

- **Decline in physical and cognitive function**
- **Increasing isolation and loss of independence**
- **Accelerated biological ageing / chronic disease**
- **Premature death / poor quality of life / huge health and social care bills**

**Figure 8. Downward spiral of physical activity and physical function decline**

Breaking the spiral of decline characterised by loss of physical and cognitive function, loss of capacity to independently manage daily tasks, reductions in social interaction and capacity to contribute to community is fundamental to healthy ageing. This is particularly true for those
who are at risk of mobility disability as a result of low levels of physical activity as they settle into changed routines after primary working years.

Breaking the downward spiral has the potential to substantially reduce reliance on health and social care services. Data from the OPAL-Plus study showed that over a five year period inactive older adults had a significantly higher number of emergency admissions and medication prescriptions than active older adults [18]. There is clear evidence that physical activity programmes are capable of reducing or even reversing this decline. Action towards preventing mobility disability needs to focus on targeted exercise initiatives which include comprehensive programmes of aerobic, strength and balance activities (See Section B for UK physical activity guidelines).

Providing structured exercise initiatives

Traditionally the older population has not prioritised structured exercise. Low voluntary uptake has probably resulted in little consideration given to the needs of older adults by commercial and local leisure providers. Inadequate supervision, intimidating environment and inadequate familiarisation with exercise equipment are still key characteristics for many fitness centres. However, there is extensive feasibility data showing that older adults engage well with this exercise context when programmes and facilities are tailored to their needs and are appealing to them. In the Better Ageing project [69] adherence to a 12-month facility-based programme was impressive, 91% of participants attended two facility-based sessions for 12 months. Several local authority-based exercise referral schemes, tailored for the less healthy population, are also dominated by middle-aged and older adults. This evidence shows that when the facility-based provision is also age-friendly the provision of structured exercise could be very successful. Ensuring the success of such initiatives is very important as organised exercise provides structured support to older people. The focus on strength training, functional ability and flexibility results in specific health benefits necessary for maintenance of mobility and independence beyond the benefits of walking and lower intensity aerobic activity.

Provision of structured exercise programmes does not need to be restricted to fitness centres. When there is no need for specialised equipment, a range of community facilities can be employed, including village halls and community centres. The Lifestyle Interventions and Independence for Elders (LIFE) Study (https://www.thelifestudy.org/public/index.cfm), use a combination of structured group-based exercise programme that develops into a home-based individual program with an option of continuing the group-based sessions. The findings of the pilot phase of this study showed that once the facility and group-based exercise program moved into a home-exercise phase participants wanted to maintain the group sessions. This may reflect that being in a
group of people of one’s own age and with similar characteristics, worries, and preferences provides opportunities for extending social networks and building new friendships. Those taking part in the physical activity intervention had a lower incidence of major mobility disability defined as inability to walk 400m, and better lower-extremity physical function compared to a control group who received general health education alone [70]. High adherence rates showed that this type of programme may be well tolerated by older adults [71]. The results of the definite multi-centre randomised controlled trial will be published in 2014.

The Otago exercise programme is an example of an effective home-based exercise programme. It is a tailored, strength and balance retraining programme, including exercises with ankle cuff weights repeated three times/week to prevent falls in older, community dwelling people [72]. Seven studies with more than 1500 participants have shown that the Otago programme can reduce the risk of mortality and number of falls in older adults when participants complete the exercises at least twice a week.

❖ Providing evidence-based falls prevention exercise

Targeted structured exercise such as falls prevention initiatives is a very important avenue for influencing functional ability and independence. These initiatives have strong evidence for being effective in reducing falls in those at risk and have the potential to significantly contribute to reducing the financial burden on the NHS and social care by preventing fractures and avoidable hospital admissions. The OTAGO programme (mentioned above) and two evidence-based programmes developed in UK, the FaME (Falls Management Exercise) and the Postural Stability Instructor (PSI), provide important examples of effective and successful falls prevention initiatives. AGE UK have recently published in their Expert Series, criteria for organising effective evidence-based falls prevention programmes and examples of good practice providing a comprehensive guide for professionals who want to start a new or improve an existing falls prevention initiative [73].

❖ Working closely with Health and Social Care professionals

A recent systematic review [74] highlighted that there is insufficient evidence to promote the widespread adoption of exercise referral schemes as data from existing trials provide very limited support for their potential role in increasing and/or maintaining physical activity. However, several studies show that older people adhere well to exercise on referral programmes. Although more well-designed studies are needed to identify the impact of this initiative on older people’s health and well-being, promotion of activity initiatives via Primary Care is an important avenue as a GP is a regular point of contact for most older people. The new NICE guidance recognises the importance of promoting physical activity via primary
care and provides useful information on what brief advice about physical activity could entail [75]. New approaches involve social prescription through which health professionals refer patients to more social opportunities in local communities with a view to benefiting patients without these referrals being exercise-focussed (see http://www.thecareforum.org/pagesocial-prescribing.html for an example of a social prescribing scheme). Although these initiatives might have great potential as a health promotion initiative for older people, well-designed studies are required before we can draw definite conclusions about their effectiveness and cost effectiveness.

The growing awareness of the demographic changes in the population and of the prevalence of chronic conditions such as heart disease, dementia, hypertension, diabetes and depression within the ageing population has prompted research and policy development targeting the creation of both age-friendly communities and initiatives that support people with chronic conditions to maintain their engagement and connectedness with their communities. The strong evidence of the importance of exercise in the management of those conditions (see Section B for quality of evidence) stresses the importance of continuing to deliver exercise initiatives targeting specific conditions in the effort to support people with chronic health conditions. Such initiatives require the close collaboration of local decision makers, exercise providers and health and social care professionals in the design, promotion, implementation and evaluation stage of those condition-tailored initiatives.

User and provider views on factors affecting structured exercise provision

Qualitative data from Avonet focus groups and OPAL interviews with service users and service providers on what community programme developers should focus on when organising and delivering structured exercise initiatives have highlighted the following areas:
Cost

Users: Low-cost or preferably free of charge activities help make an activity accessible to all income levels.

Providers: A free activity may not necessarily lead to increased attendance but may reduce finance as a barrier for those on a low-income. Charging a class fee is often necessary to cover costs but may create a financial barrier for some people. The impact of cost of provision needs to be frequently evaluated and a range of opportunities including free of charge and low cost options should be available for older people.

Location and Transport

Users: Prefer activities to be held within their local community. This has many benefits such as creating a sense of belonging and reducing transport issues. The free bus pass scheme is an incentive to get out and about. However for some people, bus use may be associated with a number of difficulties including fear of using public transport, walking after dark, poor access to bus stops and nowhere to sit and shelter at bus stops.

Providers: Feel that dedicated transport and assisted access is an important provision to enable some older adults to attend, specifically those that are isolated, living in rural communities or have mobility problems. They stress that the programmes should be offered in close proximity to residences in conducive, accessible, well-lit facilities.

Programme timetable

Users: Prefer mornings and early afternoons for attending an activity. Attendance in a very early morning programme has also been successful. Early darkness during winter months deters attendance at evening classes. People with certain conditions might have difficulty in being active in the mornings (e.g. arthritis) so early morning sessions might not be suitable.

Users stressed that an extensive timetable of exercise opportunities that provides choice and flexibility would be desirable.

Providers: Agreed that timing of activities may be important in recruiting older adults. Running morning classes was successful and they agree that this avoids the barriers of the dark evenings during the winter. It is a period of low use of facilities. They also reported that exercise activities held within the community are most commonly offered once a week.
Programme content

Users: Stress that older people are not a homogeneous group and each individual will have personal and distinct needs, interests, ability and time availability. They desire an adaptable programme to suit individual preferences. They think that an active mind is an important issue for many older adults and that providing intellectual stimulation in combination with physical activity would be both appealing and beneficial. They presented volunteering, singing groups, and dance classes as examples of activities which provide physical and mental stimulus and are popular among their peers.

Providers: Feel that providing an individualised programme may be beneficial in widening participation however there are practical problems and financial limitations for service providers. Volunteering initiatives that train older adults to be gentle activity leaders have been well-received and could further be developed. They stress that a socially engaging environment combined with education and participation in physical activities is necessary.

Social interaction

Users: The social aspect of group activities is appealing. They believe that physical activity initiatives need to promote social support networks and strengthen a sense of community.

Service providers: Provision of refreshments is successful in encouraging participants to interact, improves attendance and is well-received by older adults.

Activity Leaders

Users: A dedicated leader with whom they could develop a level of trust and rapport is necessary. The age or the background of the leader is not important. The leader should be enthusiastic, encouraging and able to facilitate social interaction. The ideal leader is trained to understand the ageing process, have knowledge of barriers to active ageing and be dedicated to the role.

Providers: Facilitating social interaction is one of the most important roles of the activity leader. Establishing intergenerational rapport between a young instructor and older participants is important.

“I don’t like going walking on my own, you need a companion; not just because you feel unsafe, but you feel a bit foolish walking alone.” (75 year old widowed female)
Sustainability & continuity of initiatives

**Users:** There is often a lack of longevity of community programmes which is detrimental to the continuity and enhancement of social networks formed during the programme. They reported that when an activity leader or organiser steps down they are often not replaced resulting in the closure of the activity.

**Providers:** Expressed frustration as short-term funding leads to short-lived activity programmes. Continuity and sustainability of an activity programme is crucial.

“Creating a scheme with a consistent and familiar name and identity would assist in developing an active culture and provide a recognisable and approachable route into activity”

Service Provider, AVONet

PRIORITY 3: Make the active choice, the easy choice

Most public health interventions targeting physical activity focus on individual behaviour change, although modifications of environmental factors to facilitate activity have the potential to improve population-level health benefits. Environmental characteristics may improve opportunities for older people to be active in a way that physical activity can become part of everyday life (i.e. well maintained and safe paths to open spaces may encourage walking in the neighbourhood). Improved opportunities for lifestyle physical activity may help to overcome some of the barriers associated with structured physical activity such as lack of time, aversion to vigorous exercise, anxiety about joining new groups at new venues, and the dislike of the rigidity of structured, centre-based exercise.

Older people living in an environment that makes it easy and enjoyable to go outdoors are more likely to be physically active, healthier and more satisfied with life (http://www.idgo.ac.uk/index.htm). Older people living within 10 minutes’ walk of a local open space are twice as likely to achieve the recommended levels of healthy walking compared with those whose local open space is further away. In addition, quality of, and access to open green spaces in a neighbourhood were associated with longer walking time for study participants [21]. Similarly, physical activity of people age 70 years and older is higher when amenities are within five minutes walking distance [1].

 PROVIDING DESIRABLE DESTINATIONS TO GET OUTDOORS

Environmental characteristics that have been reported to support and improve walkability of a neighbourhood for older adults [76, 77] include high residential density, access to retail amenities, street connectivity, safety, aesthetics, access to green and open spaces and low
hills. Participants in the AVONet focus groups reported that obstacle-free pavements, sufficient pedestrian crossings, sufficient lighting, well maintained and attractive residential areas, and routes to amenities would encourage them to walk more in their local community. There are numerous studies examining associations between environmental variables and physical activity behaviour, however, controlled intervention studies conducted with older adults are scarce. In 2008 the National Institute of Clinical Excellence (NICE) produced recommendations on creating activity friendly environments (http://www.nice.org.uk/guidance/PH8). The Commission of Architecture and Build Environment [CABE] in a comprehensive review identified issues of fear and insecurity resulting from anti-social behaviour, drug-dealing and taking, and fear of personal attack or racism. Presence of dogs, either fouling or fear of attack, was cited particularly among black and minority ethnic women. Poor design such as high perimeter walls preventing views in and out, heavy vegetation and lack of lighting promoted feelings of insecurity. As a result, CABE and the National Housing Federation published a 10 step action plan to improve open spaces in social housing areas [78]. This action plan provides very good ideas which could be adapted for improving open spaces in both deprived and less deprived areas.

Promoting active transport

As in younger and middle-aged adults, car use continues to be the main mode of transport for people over 70 years, of whom 38% are car drivers [79]. Data from Project OPAL highlighted that older adults who used the bus as a main form of transport were more active than car users. Project OPAL interviewees and AVONet focus group participants stressed the importance of transport provision to help maintain their independence. They also felt that the free bus pass has provided an incentive to get out and about within their neighbourhood and beyond. At present, there is no data on the effects of the free bus pass scheme on bus usage by older adults, however, in 2003 bus travel was reduced to half-price for the over 60s and bus travel at least once a week increased from 28% in 2005 to 35% in 2008 [79]. Older adults in the AVONet focus group felt that the bus service and convenience of bus shelters could be improved to make bus use more attractive. Personal safety, especially after dark was reported as a barrier to bus use by these participants. Strategies for bus shelter design that would improve user experience include avoiding desolate spaces, enhancing bus shelter visibility, providing good lighting, avoiding obstacles and street clutter and most essentially ensuring the provision of seating [80]. Cycling may also be an acceptable form of active transport for some older adults. Sustrans found that of people over the age of 60 who were using the National Cycle Network, 41.8% were doing so for cycling. The majority of these were experienced, regular cyclists but 16% were new to cycling [81]. In addition, 23% of members of a local community cycle scheme were over the age of 60 years [82].
Creating opportunities for incidental activity

Numerous studies have identified that frequency and time spent walking in neighbourhood is influenced by availability and accessibility of services and local amenities. Data from OPAL and AVONet interviews also identified the lack or unsuitability of local amenities within walking distance as a major barrier to daily, incidental activity. **Shopping** was the main reason for taking a trip out for the majority of participants in the OPAL study and this activity made up a large proportion of people’s daily physical activity. Strategies to enhance older adults’ ability to participate in purposeful activities, whether by foot, public transport, or car, have the potential to increase daily lifestyle activity. Policies to increase local provision of **shops, services and healthy food outlets** as a means of encouraging regular walking in the neighbourhood are needed.

Creating and promoting activity- and age- friendly environments requires local service providers and experts to work closely with local residents, encouraging them to play an active role in deciding what their open spaces should be like, how they could be used and how they should be looked after. The need for multidisciplinary action has already been prioritised in some urban settings. The **Valuing Older People** partnership (VOP) is an initiative to improve life for older people in Manchester involving many services, organisations, agencies and residents. The outcome of this partnership was the development of a comprehensive 10 year-long strategy to transform Manchester to an age-friendly city [83].
Section F: Delivering your programme

It is clear that physical activity programmes struggle to attract hard to engage groups such as those with chronic illnesses, ethnic minorities, lower SES groups, socially isolated and lonely people and those living in neighbourhoods with high levels of deprivation. In order to be effective in reducing health inequalities particular attention to provision for and recruitment of these groups is needed. Research on effective recruitment strategies is in its infancy but this section presents concepts and practical advice on how to tackle this challenge.

Health-related social marketing

One approach that the government recommends for the development of public health programmes and the tackling of participant recruitment is social marketing. Health-related social marketing is:

> ‘the systematic application of commercial marketing concepts and techniques to achieve specific behavioural goals relevant to improving health and reducing health inequalities’ [84].

Essentially this approach is the same as that used by large commercial companies, but whereas their aim is to sell more product, the social marketer seeks to influence the voluntary behaviour of the target audience to improve their personal welfare and so that of the society as a whole [85]. The other major difference is that budgets are usually substantially smaller. Some of the key elements of social marketing which are applicable to programme delivery are shown in Table 9 (see next page).
Table 9. Key elements of Social Marketing applicable to programme delivery

<table>
<thead>
<tr>
<th>Key elements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gain insight into the target audience:</strong></td>
</tr>
<tr>
<td>Who they are, what they think and believe, what they need, what their barriers to behaviour change may be</td>
</tr>
<tr>
<td><strong>Segment the target audience so that individual needs/preferences can be met:</strong></td>
</tr>
<tr>
<td>It is rarely possible to offer a solution that will appeal to everyone</td>
</tr>
<tr>
<td>Broad brush generalised communication campaigns can change attitudes but are not effective at changing behaviour</td>
</tr>
<tr>
<td><strong>Use insights/local knowledge into the target audience:</strong></td>
</tr>
<tr>
<td>In order to develop programmes that offer something this group genuinely values, and also meets the goal of improved health and well-being</td>
</tr>
<tr>
<td><strong>Do not just provide information:</strong></td>
</tr>
<tr>
<td>Aim to actually support participants to change behaviour and become more active</td>
</tr>
<tr>
<td><strong>Incorporate a well-developed promotional campaign:</strong></td>
</tr>
<tr>
<td>This needs to focus on the needs of the target audience, highlight the benefits of change and address possible barriers (via advertising, public relations, printed materials, events and person to person communications)</td>
</tr>
<tr>
<td><strong>Apply social marketing techniques throughout the process:</strong></td>
</tr>
<tr>
<td>From understanding the problem and designing the solutions, to delivering and communicating products and concepts</td>
</tr>
<tr>
<td><strong>Focus on the behavioural goals of the target audience</strong></td>
</tr>
<tr>
<td>Not on working within the internal structures or divisions of the provider</td>
</tr>
</tbody>
</table>

Consumer research

Insight into the target group is the first stage of any social marketing campaign. There is no substitute for a good understanding of why people don’t engage with activities that are currently available (do they even know what’s available?), what puts them off, what kind of activities they would be interested in, why and what would encourage them to participate. Without this knowledge, and the resulting insights, we are effectively working in the dark and may well make expensive mistakes.

Inevitably, research will reveal different segments within the target group. For example, some people will have never have tried organised physical activity sessions before and may not know what to expect. They may be worried about their abilities, not being able to keep up and not having the right clothes. These barriers would be tackled in an entirely different way to the barriers presented by people who feel they are already sufficiently active and so don’t need to participate. It is not possible to tackle these two groups effectively with the same marketing strategy.

Developing your programme

Now you have an understanding of your target group you should be able to put on an activity or programme likely to appeal to them at a convenient and appealing time and place, highlight its benefits and tackle any barriers to participating (see table 10 on next page).
<table>
<thead>
<tr>
<th>Guidelines</th>
<th>Examples</th>
</tr>
</thead>
</table>
| Highlight the benefits that the target audience rate as important          | Have fun, while you get fitter  
Friendly, sociable group – “call in for a cup of tea at 10am and join us for a … class afterwards”  
Would you like to get out and about a bit more?  
Would you like to feel a bit fitter – and maybe lose a bit of weight? |
| Address the barriers that the target group report stop them taking part    | We are all starting out together - everyone is a beginner  
Whether you’re large or small, fit or completely out of shape there’s something at ….to suit you.  
No special clothes required – just wear something comfortable and flat shoes  
Only £2 per session  
Free 10 minutes taster sessions  
Bring a friend – and pay for one get one free at your first session  
No need to let us know – just turn up  
Use images of people that look like the target group |
| Message framing                                                           | Positively framed messages (i.e. emphasising the benefits of behaviour change) rather than negatively-framed messages (i.e. emphasising the cost of being inactive) are more effective |
| Make a clear and specific call to action                                  | Come along to the …. Leisure Centre on Thursday 5th May at 11am – you can try a short taster session of … and enjoy a free buffet lunch afterwards.  Feel free to bring a friend. We’re looking forward to meeting you ’. |
| Ask for referrals and build on word of mouth                             | If you know someone who you think might be interested in …please pass on this flyer or let us know and we will send them some information |
| Provide contact details in case people have concerns they’d like to address before attending | If you have any questions or would just like to talk to someone about …. please call …. on ……. |
**Promoting your programme**

Once research has carefully defined the target group and you have developed your programme. The next stage is to recruit people to take part. There are two key elements to a promotional strategy 1) the message/content and 2) the delivery method. The messages contained in the promotional materials are more effective when they are clear, simple and cohesive. Bear in mind that the reasons we may want people to take part in physical activity (improved health and well-being) may not be what motivates them. We often find that the possibility of reaping health benefits in the future is not very influential at changing people’s behaviour today. Emphasising short-term benefits such as fun, socialising and enjoyment might be more powerful as they offer much more instant payback.

**Delivery mechanisms**

The next challenge is to get your message to your target group. In the commercial marketing field there is on-going debate about what the optimal exposure is, but suffice to say the target market needs to be exposed to your promotional materials several times before they are likely to act on your messages. This is the point at which many community-based programmes struggle; budgets are small, promotion is limited, take up is poor and the programme never becomes sustainable. It is important therefore to deliver the best promotional campaigns possible with the resources available. Combining findings from the field, literature and data from AVONet focus groups with older adults and service providers it appears that older adults may be more receptive to some promotional tools than others.
Table 11. Examples of community level promotional tools

<table>
<thead>
<tr>
<th>Promotional tool</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posters and flyers</td>
<td>Libraries, local shops, community centres (notice boards and backs of toilet doors), local notice boards and doctors’ surgeries - covering all these locations will be more likely to lead to repeat exposures</td>
</tr>
<tr>
<td>Local and community newspapers/radio</td>
<td>These are often well-read/listened to by older adults and while advertising may be costly submitting an editorial piece (written from a news rather than a sales angle) could result in valuable coverage</td>
</tr>
<tr>
<td>Leaflets</td>
<td>Leaflets through the door are often viewed as junk mail – but they do give very broad coverage. If the message is instantly clear and relevant, leaflets could attract the attention of the target group</td>
</tr>
<tr>
<td>Personalised letter</td>
<td>Reasonable quality commercial mailing lists are available and data can be selected on simple demographics, i.e. postcode, gender, age etc. If you have the time (or volunteers) hand-written envelopes indicate a personal approach rather than a mass campaign</td>
</tr>
<tr>
<td>Banners</td>
<td>Large, outdoor banners can be a high profile, relatively cheap promotional tool, especially when used across multiple sites</td>
</tr>
<tr>
<td>Personal contact</td>
<td>Visits/presentations at local groups/sessions give your programme a human face and enable you to discuss benefits and tackle barriers on a one-to-one basis</td>
</tr>
<tr>
<td>Website/email</td>
<td>More and more older adults have access to the web – and websites and email are a useful means of communicating with local professionals and community groups</td>
</tr>
<tr>
<td>Word of mouth</td>
<td>The most effective form of marketing communications – but it has to be triggered by a high profile, interesting promotional campaign and/or highly positive experiences by programme participants. Programmes need to ensure that positive experiences are widely communicated</td>
</tr>
<tr>
<td>Referral</td>
<td>Recruit GPs, peer community champions and public health professionals to refer participants to the programme</td>
</tr>
<tr>
<td>Directories/community websites</td>
<td>Older adults (and service providers) often express a need for a central and accessible directory of local activity information. If one exists get details of your programme in it, if not could it be created?</td>
</tr>
<tr>
<td>Multi-media</td>
<td>Using as many appropriate promotional tools as possible results in multiple exposure, and creates a ‘buzz’, gets the campaign talked about and triggers vital word of mouth communications</td>
</tr>
</tbody>
</table>

For more discussion of social marketing and details of a pragmatic example of a community-based social marketing campaign see Withall, Jago and Fox [86].
Evaluating your programme

There are several reasons why programme evaluation is important and beneficial. It can provide valuable information on how to improve your recruitment and delivery and help persuade fund holders that your programme is worthy of sustained investment. Unfortunately evaluation can be time consuming and expensive, and ideally should involve some research expertise. One way to achieve this is to create partnerships with local colleges or universities who have an interest in community programme delivery and evaluation. There are more details about partnership working in the next section.

The difficulties involved in conducting localised evaluations on limited budgets are slowly being recognised and more advice and guidance is now provided. There are several conceptual models or frameworks that can be used to assist in programme planning and evaluation. Two of these that have a very strong evidence base including PRECEDE-PROCEED [87] and RE-AIM [88] (http://www.re-aim.org/index.html).

RE-AIM Components

RE-AIM refers to planning for and evaluation of:

- **R** each or reaching your target audience

  *How successful are you at recruiting the people you want?*

- **E** ffectiveness of your programme including cost and benefit analysis

  *Does taking part make a difference to participants and is the cost worth it?*

- **A** doption by target setting institutions, communities and staff

  *How well and widespread is the programme adoption by the delivery organisations?*

- **I** mplementation, or consistency and cost of delivery of the programme

  *Is the programme being delivered well and in the way it was meant to be delivered?*

- **M** aintenance of programme effects and programme delivery in settings over time

  *Are you able to retain participants, do they continue to benefit and is the programme itself still being delivered?*
To understand how to apply RE-AIM to evaluate recruitment, delivery, outcomes, and economic considerations of your programme, refer to the USA National Council on Aging’s document, “RE-AIM for Program Planning: Overview and Applications” (http://www.ncoa.org/improve-health/center-for-healthy-aging/content-library/IssueBrief_ReAim_Final-2.pdf). This is an invaluable resource, as it applies the RE-AIM framework to the planning and evaluation of a physical activity programme for older adults. A practical and useful UK resource for evaluating physical activity programmes is offered by that National Obesity Observatory (http://www.noo.org.uk/uploads/doc/vid_16722_SEF_PA.pdf). It offers specific guidance and useful measurement tools. Even with these resources, evaluation can seem daunting and with a very small evaluation budget (which is usually the case) it is important to be realistic in what can be achieved. The following box lists minimal or starter evaluation schemes by priority and cost.

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**Elements of Evaluation**

**Audit data – recording numbers**
Who do you recruit to your programme? What are their characteristics? How similar are they to the target population? How often do they attend? How many can you keep in the programme and for how long?

**Cost data – keeping a budget**
What are the basic costs per participant in terms of staffing, training, facilities, and subsidies

**Process data – asking through questionnaires, focus groups or interviews**
What do participants and staff think of the programme and what can be improved?

**Change data – measuring activity and other outcomes at the start and later**
Do participants increase activity, function, well-being?
Section G: Developing partnerships for physical activity promotion

As we have seen in previous sections, there are many approaches to promoting physical activity in older adults. If communities are to take advantage of the tremendous benefits that an active, functional and healthy older sector can bring, then it will require many agencies and organisations to work together. It will take many initiatives; convincing the older population that physical activity is critical to ageing well, providing the kinds of support, services, and facilities that they could benefit from and improving neighbourhoods so they are truly ‘user friendly’ and appealing for activity. The range of options from provision of allotments, improving green spaces and public transport, to opening up fitness and health centres in the quiet morning hours are diverse and need partnership working.

Our experiences with AVONet have led us to encourage Health and Well-Being Boards to establish similar working partnerships tasked with the development of physical activity promotion for older adults.

“To plan, promote, and coordinate efforts to increase physical activity, public health agencies especially need to form partnerships with several community organisations: schools; businesses; policy, advocacy, nutrition, recreation, planning, and transport agencies; and health-care organisations. In these efforts, public health agencies should ensure that strategies to reduce health inequities in physical activity are implemented, should monitor the effectiveness and reach of interventions, and need to report routine assessments of the programmes to relevant stakeholders and partners.”

Lancet [44] p.19-21

Community coalitions can help foster community ownership, may result in sustainable organisation and community-level changes, and may be a viable approach to increasing resources and activity provision for older adults [89]. There is some evidence that they work. The Active Aging Community Task Force (AACTF) fostered the development of 25 community coalitions charged with creating exercise classes for older adults [90]. A process evaluation reported that over 5 years, 36 workshops to train exercise class leaders were conducted, and over 7000 older adults attended the 153 new exercise classes. The results indicated that local area agencies and local health departments had the ability to effectively organise and manage coalitions to develop exercise classes for older adults. SESPAN (The
Southeast Senior Physical Activity Network) is another example of a project successfully creating a community coalition [91]. Evaluation of the project emphasised the importance of having organisational champions at multiple levels within organisations that had the resources and ability to implement changes.

Partnership working requires some thought. Different agenda, objectives, priorities and even communication styles and terminology can test capacity to work together. Following the operation of AVONet we studied factors that influenced perceptions of success, how well its structure worked, and the value of sustaining it. Academic and professional partners regarded the network as successful. Academics were more positive, probably a result of the network being driven by a research team and the development of research proposals based on ideas for effective physical activity promotion. Professional contributors who mainly represented local councils or charitable organisations tended to feel more peripheral.

Equally important is the role of the service users community. The importance for a comprehensive and meaningful patient and public involvement (PPI) in the development and evaluation of age friendly initiatives and environments is nowadays widely acknowledged. The National Institute of Health Research (NIHR) has introduced a hierarchy of levels of PPI. Although this hierarchy targets mainly the research development needs, local decision makers could adopt similar approaches for developing physical activity promotion community initiatives (see the box below).

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**Ways for public involvement in local decision making process [92]**

- **Consultation:** Consultation involves inviting people who use community initiatives, asking them for their views and then using these views to inform the decision-making process. For example, one-off meetings with local residents to ask their opinions on proposals for new initiatives or to ask them to evaluate existing services and initiatives.

- **Collaboration:** Collaboration involves active, on-going partnership with members of the public in the development and evaluation of community initiatives. For example, people who use services might take part in a steering committee, or collaborate with local providers and decision makers to plan, implement and evaluate new initiatives.
Based on our experiences in AVONet and literature from other partnership initiatives, we suggest some key guiding principles to developing and sustaining partnerships, shown in the box below.

### Summary of lessons learned and some guidance from AVONet

**We found that:**

- Partners need good reasons to come to meetings
- Partners need to feel that they are given plenty of chance to contribute
- Establishing ‘buy in’ from partners increased commitment
- There is a need for a communication style and language at meetings that is inclusive of all. Information from all sources must be treated with merit so there is no formal hierarchy of worth
- You can achieve a lot in a short period of time if it is well organised
- The work can be really interesting
- Diversity is challenging but stimulating
- You need to manage expectations as they tend to rise with time
- Sustainability needs to be tackled from the start

**Recommendations:**

As with any organisation, a set of objectives and a strategic plan, goals, schedule and evaluation plan will be needed to organise activities.

- **Diversity of membership.** University academics, charitable trusts, industry, local authority coordinators, service providers and service users all have important perspectives to offer.

- **Establishing a shared purpose.** If all partners are to be engaged the shared purpose needs to fully embraced. Investment of time and effort is more likely if the purpose also satisfies at least one objective of the partner organisation and/or the work of its representative.

- **Recognising differences.** Understanding and respecting the different ways in which agencies speak and operate and adjustment of meetings to accommodate them is important, if all are to feel valued. Contributions from academics partners waned when we banned words longer than 8 letters! On the other hand, as confidence built among service users, we had to add time limits to contributions.
• **Use a structure that maximises responsibility.** We concluded that the management of the network required a committed small management group who communicated regularly. Sustained involvement of others was more likely if they were given responsibilities and ownership through working groups and specific tasks. A paid facilitator may be a worthwhile investment to manage meetings.

• **Maximise communication.** We found that professionals in particular wanted more regular communication so they felt in touch with developments. This was not necessarily through meetings (which are often seen as time consuming) but through email, phone and web sites.

• **Aim to secure funding for sustainability.** Any alliance will require time, and another way of winning commitment from partners is if they are able to help bring resource to the table. Often funding for work such as physical activity promotion is piecemeal and temporary in nature and a partnership can be the best way to combine funding, or to help in securing larger regional or national resources.
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