

**Older People, Sport and Physical Activity:  
A Review of Key Issues**

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A research study for **sportscotland**

by

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## BACKGROUND

Recent major strategies in Scotland have focused on raising levels of participation in sport specifically and physical activity more generally. *Sport 21* (**sportscotland**, 2003), Scotland's national strategy for sport, emphasises that age should be no barrier to participation. One of its 11 key targets is that 43% of those aged 45-64 will take part in sport at least once a week by 2007. Complementing this strategy is Scotland's new Strategy for Physical Activity, *Let's make Scotland more active* (Physical Activity Task Force, 2003) aimed at increasing and maintaining the proportion of physically active people in Scotland.

Both of these strategies prioritise the older population amongst target sectors for increased participation in sport and other physical activities. Older people are a priority on account of their current significant under-representation in such activities, the health and other benefits to be derived from their regular participation and the increasing proportion of the Scottish population which falls into the older age groups.

Much research and many initiatives have focused on older people's participation in sport specifically and physical activity more broadly. The aim of this review is to provide an overview of the key issues in relation to sports and physical activity participation by older people to inform future policy and programmes.<sup>1</sup>

## SCOPE

The review is primarily literature based, with consideration of interventions limited to Scottish projects which had some existing evaluation material. Although this report was commissioned by **sportscotland** to look primarily at issues relating to sport, much of the information emerging relates to physical activity more generally. The recommendations are those which emerged from the literature and are provided for the interest of all those involved in this field.

In light of the substantial body of relevant literature a decision was made to restrict the scope of any searches to material dated from 1990 onwards, with reference to any earlier work only if particularly important. This enabled the review to concentrate on the most recent information as grounding for policy development. Other parameters were introduced to narrow the scope of the review. These were to focus on studies and schemes involving free-living (rather than institutionalised) older people; to concentrate on studies of those generally in sound health (rather than, say, interventions for those recovering from strokes or CHD); to include studies of ordinary people rather than those relating to elite veteran athletes; to use material published in English; and to include findings only where these had potential relevance to the Scottish context.

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<sup>1</sup> Two relevant policy documents produced since this review was completed are: *The Equity Standard: A Framework for Sport*, Sport England, 2004 (a collaboration of the four home country sports councils and UK Sport); and *Ethics in Sport*, **sportscotland**, 2003.

## METHOD

Methods used were primarily desk-based but also included contacts and meetings with relevant organisations, practitioners and researchers. An analytical framework was designed to maintain a tight policy focus for the large volume of relevant literature reviewed for the study. Both published and unpublished material was identified and reviewed. The main method of sourcing relevant literature was via internet-based journal databases. Other material was located by personal approaches to relevant organisations and academics.

A sample of seven current and previous Scottish-based interventions was identified and reviewed to draw out lessons learned and good practice. Interviews were undertaken with personnel involved in policy development at **sportscotland** and the Scottish Executive to explore the policy context for older people's participation in physical activity. The latest statistical material on participation rates and population projections was reviewed in order to provide further context for the review.

## STATISTICAL CONTEXT

Recent statistical material provided a context which supported the prioritisation of promotion of sport and physical activity amongst older people. Sports participation data disaggregated by age was available from **sportscotland's** regular participation survey (Table 1). The survey collects information on participation within the 4 weeks prior to interview.

**Table 1: Sports Participation in Scotland 2000-02 by age group and gender**

<b>Gender</b>	<b>16-44 years</b>	<b>45-64 years</b>	<b>65+ years</b>
<b>Male</b>	80%	61%	44%
<b>Female</b>	69%	54%	35%
<b>Total</b>	74%	57%	39%

The figures demonstrated a steady decline in levels of participation with age, with female participation consistently below that of males.

The steady decline in participation rates with age was set against a picture of a gradually increasing older population in Scotland. Latest General Registrar Office population projects for Scotland are 2002-based and take full account of the 2001 Census results. The projections indicated that the age structure of the population is likely to change notably between 2003 and 2027. Table 2 overleaf provides a summary of the projected population by age groups.

**Table 2: Projected Population of Scotland by Age Group, 2003-27**

Age Group	2003	2008	2013	2018	2023	2027
	Thousands					
Total population	5,045	5,007	4,970	4,935	4,891	4,840
	Percentage of total population					
Children (under 16)	18.7	17.3	16.2	15.8	15.8	15.8
Working ages:						
16-29	17.3	18.0	17.9	16.9	15.7	14.9
30-44	22.7	20.5	18.6	17.9	18.6	18.5
45-64/59*	22.4	24.0	26.2	28.1	27.3	26.1
Total (16-64/59*)	62.4	62.5	62.7	63.0	61.6	59.6
Pensionable ages:						
65/60*-74	11.7	12.4	12.4	11.7	11.6	12.5
75+	7.3	7.8	8.6	9.5	11.0	12.1
Total (65/60*+)	18.9	20.2	21.0	21.2	22.6	24.6

Source: GROS. Based on 2002 figures.

\*Pensionable age is 65 for men, 60 for women until 2010; between 2010 and 2020 pensionable age for women increases to 65, however, to retain comparability across the years, these figures assume the continuation of the present structure.

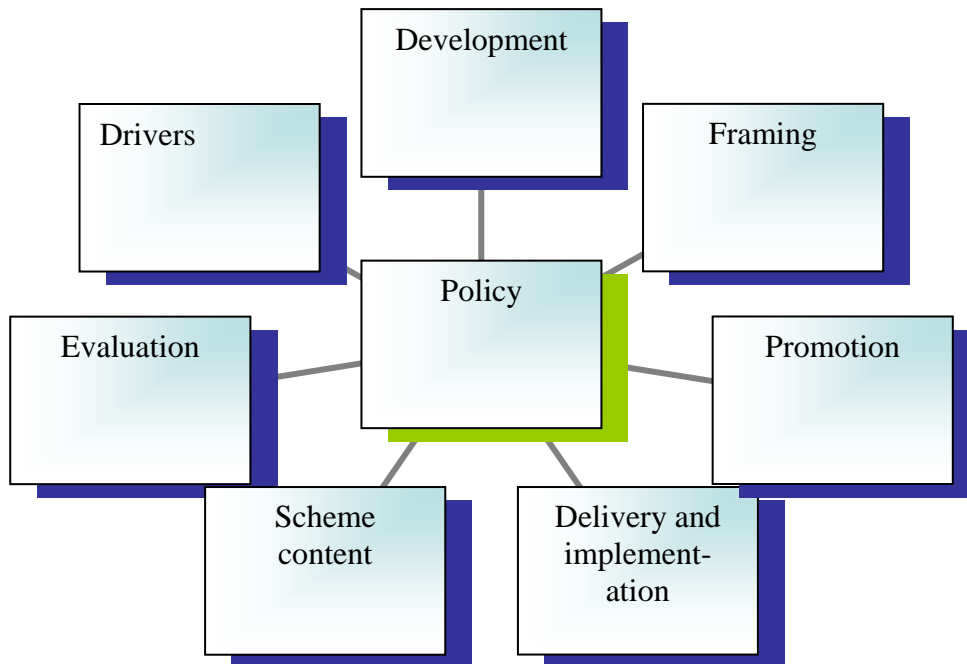
Of most relevance to the current review is that the only age groups expected to increase between 2003 and 2027 are those which fall within the “older people” bracket: those aged 45 and over. The number of people of pensionable age is projected to rise by 25 per cent to nearly 1.2 million in 2027. The number of older people of 75 and over is projected to rise by 61 per cent over the same period. In addition to these significant population changes, the gender balance of the older age groups is likely to alter: the projected change amongst the population aged 75 and over is from 35 per cent male in 2003 to 42 per cent male in 2027.

## OVERVIEW OF FINDINGS

A framework was devised to focus the analysis of relevant literature and identify important findings around key aspects of policy development and delivery. Figure 1 outlines the structure adopted.

The main aim of the review was to provide an overview of key issues in relation to sports and physical activity participation by older people to inform policy in this area. A multitude of issues emerged from the review and are highlighted below.

**Figure 1: Analytical Framework for Review**



### **Policy Drivers**

- Health and economic benefits of physical activity amongst older people along with demographic change and relatively low participation rates provide strong drivers for policy development.
- Evidence on the physical health benefits of regular physical activity is compelling.
- Evidence on the mental health benefits of regular physical activity is more complex and associations tend to be indirect.
- One economic analysis suggests that at a population level, the economic benefits of regular physical activity for adults aged 45 and over outweigh the costs (eg work days lost due to sports injuries).
- Age groups aged 45 and over are those expected to increase in size between 2003 and 2027.
- Levels of participation in sport by older people have shown a gradual upward trend since the early 1990s.
- Only a minority of older people meet recommended levels of physical activity according to population surveys.



- Walking, along with routine home-based activities such as heavy gardening and housework comprise the bulk of older people's physical activity.

### **Motivations and Barriers to Participation**

- Literature suggests that older people need to be educated on how the widely accepted health messages on the benefits of physical activity can be applied to themselves.
- Previous findings suggest that educational messages require to be appropriately tailored for older people.
- Walking emerged as a preferred physical activity of older people in Scotland and other countries worldwide.
- People of different ages reported different associations with sport and physical activity. Older people emphasised enjoyment, fitness, health, relaxation and the challenge they brought.
- Middle-aged men tended to view physical activity as something to treat a condition rather than prevent poor health.
- Older people appeared more motivated to participate by socio-psychological rationales, such as promoting relaxation and/or socialising, compared with their young counterparts.
- Real and perceived medical problems and fear of such problems were significant barriers to regular physical activity in older people.
- Psychological barriers and practical barriers also posed significant challenges to older people's participation.
- Local proximity of age-appropriate physical activity opportunities at a time and cost accessible to older people facilitated their uptake of exercise.
- Older women in particular benefited from having social support to encourage their participation in physical exercise.
- Appropriate urban and environmental planning, such as the provision of attractive walkways, can make a positive impact on older people's uptake of physical activity.

### **Policy Framing and Positioning**

- One study revealed that older people perceived previous physical activity campaign messages to be aimed at younger people and in particular, younger women.
- The shift in emphasis of physical activity message from vigorous bouts of exercise to moderate everyday activity has provided an opportunity to promote physical activity to older people in a more marketable and amenable manner.
- The opportunity presented for the promotion of moderate physical activity to older people has yet to be fully exploited, by perhaps building upon physical activities undertaken routinely in everyday life.

- The myriad of terms and definitions used to describe physical movement can curtail the presentation of a clear, consistent message.
- In terms of promotional message, one size does not fit all, with a need for sharper tailoring of promotional message according to target audience or perhaps by different activity levels.
- A recurring recommendation was to focus promotional messages on the goals of broader physical functioning or social rewards rather than specific health benefits of physical activity.
- Many commentators agreed on the appropriateness of emphasising functional fitness and self-efficacy in promotional messages to older people.
- Evidence suggested that the promotion of physical activity at earlier life stages, for example, amongst middle-aged women, or amongst school children, may contribute to stimulating active behaviours which continue into older age.
- It was recommended that older people should be involved in the planning and evaluation of physical activity promotions and interventions.

### **Strategies for Promoting Participation**

- It was argued that GPs are well placed to promote exercise to their patients.
- Findings demonstrated that GPs were a significant source of advice for older people and can counteract older people's health concerns about taking up exercise.
- Very little evaluative material exists relating to the impact of promotional campaigns by GPs.
- Initiating new physical activity in old age has been shown to be strongly associated with encouragement from health care professionals.
- Despite the apparent potential offered by GP referral schemes and the significant benefits cited in the literature, a wide variety of barriers have curtailed their growth and development.
- More research is needed on the potential of various health care professionals in promoting physical activity.
- It has been argued that media-based promotional strategies are more appropriate for currently active older people who are less likely than those currently inactive to need face-to-face encouragement and support.

### **Sport and Physical Activity Schemes: What Works?**

- A recurring finding was that, in general, physical activity schemes which were group based and facilitated companionship and camaraderie had a greater success in retaining participants than others.
- Many commentators stressed that initiatives should be fun and enjoyable.

- There were mixed views on the relative merits of home based initiatives compared with those located at leisure facilities. Differences tended to reflect individual preferences and circumstances.
- The importance of the continuing availability of professional support for both class based and home based exercises emerged as key.
- Regular walking was viewed as an important aspect of an active lifestyle with the promotion of walking seen as having potential to produce beneficial health benefits at population levels.
- Much can be learned from previous and current physical intervention schemes in Scotland and it is recommended that further study be undertaken to focus on good practice to emerge from these.

### **Issues of Equality Between Different Groups**

- In general, men, younger people and higher occupational groups tended to undertake more sport and physical activity than others.
- Women, more than men, tended to report more reasons for not taking part in sport and physical activity.
- A significant barrier to regular participation emerged as the need for women to fit with stereotypes of women's activities and place.
- Overall, men and women appeared to have different motivations for participating in physical activity with men wishing to monitor their fitness and be competitive and women seeking enjoyment and a feeling of well-being.
- No clear gender effect emerged on associations between sport and physical activity and mental health benefits although more in-depth research was recommended to examine this.
- Several challenges to promoting physical activity to lower socio-economic groups were identified, including the financial cost of participating regularly.
- There is a dearth of literature relating to matters of ethnicity and sport and physical activity participation in Scotland (although a larger body of material exists in relation to the position in England).
- Where evidence exists, few differences in needs in relation to sport and physical activity participation were found between different ethnic groups.
- The greatest barrier to participation amongst minority ethnic groups was experience of, or fear of experiencing, racial discrimination.

### **Issues of Monitoring and Evaluation**

- Many previous studies lacked the robust and sound approach required for solid grounding of future policy.
- Many commentators have outlined problems for researchers such as small samples, time-limited research designs and the very small changes in physical activity behaviours likely to emerge.

- Self-reporting as a common research device was associated with respondents' over-reporting of levels of activity and other difficulties in interpretation.
- Longer term follow-up of interventions was called for in order to assess changes in motivation and behaviours over time.
- A need for more consistent and relevant methods and measures in research on outcomes was identified.
- Calls were made for closer examination of older people's motivations to take-up active lifestyle opportunities.
- Research has been recommended on the prevalence of and explanations for apparently illogical and distorted ideas about physical activity amongst some older people (eg, their concern that getting a little out of breath may be dangerous).
- Further research has also been suggested on perceptions amongst the wider public and amongst GPs on older people's participation in physical activity.
- A number of other specific research studies were called for including research which acknowledged and accommodated the diversity in the older people sector.

## **OVERARCHING RECOMMENDATIONS**

In addition to these individual headline findings, a small number of overarching recommendations also emerged from the review:

### **An Opportunity to be Grasped**

The research evidence on existing activity in older people's daily lives, when set against the current policy aims of increasing levels of sport and physical activity, demonstrated the potential for exploiting older people's current activity frameworks to achieve the policy goals. Across many countries, the review evidence demonstrated the commonality of regular walking by older people, their appreciation of attractive walking environments, their daily experiences of gardening, heavy housework, DIY, physical activities with grandchildren and so on. At the same time, the key policy message has shifted from one of advocating vigorous fitness activities to the promotion of more moderate and routine activity to be accumulated on most days.

An overlay of this policy message onto the evidence on older people's daily routines highlights the key opportunity for the promotion of physical activity, by supporting and encouraging older people's *existing* activity to a regularity and intensity required for health benefits to accrue.

Despite much evidence of the short-term success of a variety of interventions designed to increase older people's participation, the research evidence suggests that combining the successful elements of such individual interventions

with more substantive support and encouragement of changing *daily active living routines* may prove to be much more sustainable over a longer term.

Although simple in concept, the notion of promoting physical activity on the back of older people's everyday lives faces significant hurdles. For example, the review demonstrated differing constructs of what constitutes physical activity. Some middle-aged men reported strong associations of physical activity with vigorous fitness activities, many older people considered physical activity not for them, were fearful of overdoing it, and needed 'permission' from a health professional before upping their activity levels. Older people were seen to be relatively inaccurate in their estimates of their physical activity with many over-estimating their current levels.

It could be argued, however, that these and other barriers are outweighed by the opportunity presented by the revised and more achievable policy aims of regular moderate activity amongst older people. Moderate activity is more likely to be sustained over time, need not present financial or accessibility difficulties and can be undertaken on an individual's own terms and home ground if desired. The key to exploiting this promotional opportunity appears to lie largely in adopting the most appropriate terms, constructs and contexts. Other particular challenges may perhaps stem from, a) the positioning of message within the health promotion camp when many older people associate exercise more with social rewards; and b) the lack of awareness amongst the population of the revised recommendation, with common understandings still tending to be centred on the previous promotion of vigorous exercise.

It is noted that the revised policy message may be difficult to portray clearly, with respect to its combination of duration, frequency, age and intensity dimensions. This suggests that more effort should be devoted to developing ways of presenting the message to older people in a consistent, memorable and relevant fashion. Despite its evolution within the health policy domain, perhaps a portrayal of the message from a social inclusion angle, encompassing participation, access, social interaction and rewards, volunteering and enjoyment may better reflect the conceptual frameworks of older people which emerged in the review. A focus on preventing poor functioning and exclusion may chime more closely with older people's daily lives, with physical activity participation being viewed proactively as an 'insurance' for social inclusion rather than reactively as a remedy for ill-health.

**Recommendation: There is a need to exploit more effectively the current opportunity to promote physical activity participation amongst older people by adopting more appropriate conceptual frameworks and messages in promotion.**

## Heterogeneous Populations

The focus of the review has been on drawing out generalisable lessons relating to older populations. Such a task was made relatively straightforward by previous literature's general lack of segmentation of the older population by age, activity level and so on. Demographic changes and improvements in population health demonstrate the steadily extending 'older' age category, which clearly encompasses a diversity of experience, attitude and functionality. The review unearthed mixed views on ways of segmenting older populations but a general opinion was that a one size promotional message would not fit all.

**Recommendation: It is recommended that more work be done to devise evidence based segmentation of the older population for the purposes of more effective targeting and tailoring of the policy message on sport and physical activity.**

## Research Base

In undertaking this review, some drawbacks of previous methodologies were noted and a variety of gaps in research were identified. A particular area of concern was the adoption of outcome measures which are relatively ineffective on account of their bluntness or inappropriateness.

A scan of the literature revealed an over-emphasis on measures of self-reported accounts of levels of activity and of physiological fitness testing, perhaps at the expense of more innovative and sharper indicators which could reflect even minor changes in motivation and readiness to exercise. It is argued that without an overhaul of common outcome measures and a more discerning approach to devising appropriate indicators, subtle but effective elements of approaches may be overlooked. Perhaps the involvement of older people in contributing to new indicator frameworks may reap rewards.

**Recommendation: It is recommended that older people are involved in a process of review of commonly-used outcome indicators in order to develop a more innovative and sensitive package of measures, more appropriate to the patterns of change in motivations and take up of sport and physical activity by older people.**

## Compatible Promotions

It was interesting to note the recurring theme of earlier life activity habits influencing later age participation and routines. Whilst one aspect of the message aimed at the current older population must be that, "*it's never too late to start*", the evidence is strong for supporting this by compatible promotional messages on physical activity amongst younger age groups. One significant finding was the association between activity in middle-aged women and their activity habits in later life, suggesting that middle-aged women could constitute a

key target group along with other population sectors such as school-aged children.

**Recommendation:** It is recommended that the nature and design of physical activity promotion aimed at younger age groups takes into account the longer-term goal of establishing physical activity habits of a lifetime.

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