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# Addressing inequalities in sports and physical activity participation

## POLICY BRIEFING

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## Introduction

*“If we could give every individual the right amount of nourishment and exercise, not too little and not too much, we would have found the safest way to health”*

*Hippocrates*

Since the early Greeks, the role of physical activity in promoting health and wellbeing has been recognised. Participation in regular sport and physical activity is associated with preventing over 20 chronic health conditions, including heart disease, stroke, diabetes, cancer, obesity and musculoskeletal conditions.<sup>1</sup> As well as the benefits to physical health, regular activity is associated with mental health, cognitive function and academic achievement.

Participating in the recommended amount of physical activity, of 150 minutes per week, through either moderate- or vigorous-intensity activities has also been associated with a 30% lower risk of death than those who do no regular activity. Participating in higher levels of activity (3-5 times the minimum amount recommended) leads to an additional 9% reduction in the risk of death.<sup>2</sup> Globally, current levels of physical inactivity account for approximately 5.3 million deaths per year,<sup>3</sup> putting it on a par with smoking. However, most governments invest a lot less resource into addressing physical inactivity.

Physical activity can be accumulated through a combination of recreational pursuits such as sport and exercise, cycling and walking to get to and from places or through our occupations. However, recent decades have seen the introduction of labour saving devices to our homes and workplaces, the rapid proliferation of motorised transport and a switch to passive, sedentary forms of recreation such as watching television and playing computer games.

Currently, approximately 30% of adults across the world do not take enough physical activity to confer a health benefit.<sup>4</sup> In Northern Ireland, we are not fairing as well as other developed countries. Only half (53%) of adults living in Northern Ireland meet the current recommended minimum level of physical activity.<sup>5</sup> However, there are certain groups in society who do not even achieve modest proportions of activity, many of whom would have most to gain in terms of health and wellbeing from being physically active. Levels of physical activity are considerably lower in females compared to males. For example, 60% of males meet the recommended level, whereas only 47% of females do. Only 43% of individuals living in the most deprived areas of Northern Ireland meet current recommended levels, compared with 60% in those living in least deprived areas.

Many countries, are facing rapid and sustained increases in the proportion of the population aged 65 years or older, and Northern Ireland is projected to have the most rapid increase in the age of its population with around 23% of the population projected to be aged 65 and over by 2035.<sup>6</sup> Ageing societies pose a major public health challenge due to associated levels of disability, poor quality of life, morbidity and increased mortality. Levels of inactivity increase with age, with a concerning 75% of adults aged 50 or older not meeting recommended levels in Northern Ireland.<sup>7</sup> People with disabilities are also significantly less likely to be active. Only 23% achieve the recommended level of activity. There are more than a billion people with disabilities worldwide, many of whom face substantial barriers to participating in physical activity.<sup>7</sup>

These individuals represent large groups in society, and the data above demonstrates that we are currently failing to reduce the inequalities that exist in activity participation. Focussed support is needed to assist those in need reach their potential health and wellbeing through active, vibrant lifestyles. We believe the first step in addressing these inequalities is to identify the factors related to activity in these groups, so targeted public health programmes can be developed to help those most in need.

### **Inequality regarding Knowledge of Physical Activity Guidelines**

As stated previously, the UK Chief Medical Officers published guidelines recommended that all adults should undertake a minimum of 150 minutes of at least moderate-intensity physical activity (activity that makes you slightly out of breath) each week for health-enhancing benefits.<sup>1</sup> Knowledge of how much physical activity that we should be doing has been shown to be an important first step to being regularly physically active. However, a recent study demonstrated that only 8% of adults in Northern Ireland are aware of how much physical activity is recommended for health benefits.<sup>8</sup> Therefore, health promotion campaigns to raise awareness that such guidelines exist are imperative.

An understanding of the characteristics of those who are unaware of the physical activity guidelines can help in the development of targeted, effective health promotion campaigns and interventions. Findings from a recent study suggest that males who had a lower level of education (five times more likely), lived in more deprived areas (four times more likely), with low income (twice as likely) and did no physical activity (twice as likely) were more likely to be unaware of the guidelines. Females who were younger and reported poor health were more likely to be unaware of the guidelines.<sup>8</sup>

#### *Time for Action: The Need for a Public Health Campaign*

Clearly there is a need to raise awareness of physical activity guidelines in Northern Ireland. The specific groups highlighted above may benefit from particular targeted physical activity guidelines promotion interventions. Social media platforms, such as Twitter, may aid local health departments in informing and educating the population by reaching large numbers of people with real-time messages at relatively low cost. The use of social media as a tool for the dissemination of public health messages is beginning to be realised and harnessed; however, it may be a particularly useful medium for targeting younger people.

Market segmentation techniques, such as those adopted by Sport England could enable specific targeting of public health messages to the groups identified in the current study (<http://segments.sportengland.org/>). There is also a need to construct distinct messages for different audiences. For example, policymakers need clear and concise facts and guidance on how to design effective policies. Targeting health promotion messages for specific socio-demographically defined groups may increase the chance of success for campaigns to raise the level of knowledge of physical activity guidelines.

Further, General Practitioners (GP) and physiotherapists can play a central role in health promotion. They are well placed to deliver physical activity health promotion messages because of their training and experience, particularly to those of poor health.<sup>9,10</sup> However, we must ensure that GPs and physiotherapists of the future are sufficiently confident to disseminate accurate physical activity information and guidelines.

## **Inequality in Sports and Physical Activity Participation**

Of course, knowing how much physical activity we should be doing and actually doing sufficient physical activity to meet the guidelines are very separate entities. As stated previously, only 53% of adults in Northern Ireland currently meet the current physical activity guidelines.<sup>5</sup> Therefore, it is imperative these guidelines are followed up by innovative and sustainable action. Increasing the proportion of the population doing physical activity represents a considerable societal challenge. Given the limited resources for health promotion, we need to target those most “in need”. Similarly, developing an understanding of the characteristics of those who are not meeting the physical activity guidelines can help effectively develop and target evidence-based population-level physical activity interventions.

Analysis from a recent study showed that males older than 55 years of age, and both males and females who report poor health, are significantly more likely to do no physical activity.<sup>11</sup> Further, modelling predictions for policy-relevant stereotypes illustrated that males, aged 55 years or older, who are economically inactive, with no car, in poor health and living in the most deprived areas, are more likely to do no physical activity compared to some or sufficient physical activity to meet the guidelines. This is in stark contrast to younger males who are economically active, in very good health and live in the least deprived areas. For females the pattern is similar.

### *Time for Action: Implications for Public Health Policy and Practice*

However, translating such evidence into public health planning, policy and practice, and addressing inequalities in participation are challenging. Potentially, some socio-demographic and socio-economic characteristics could help us identify subgroups that need specific, targeted physical activity interventions. This research suggest that males who have a lower level of education, living in more deprived areas, and young females and females with reported poor health may benefit from targeted physical activity promotion interventions. This suggests a need to move away from a “one size fits all approach” towards tailored interventions in order to halt the physical inactivity “pandemic”. Further, a population-level shift could be achieved through targeting those who do some physical activity (but not enough to meet the guidelines) and encouraging them to do a little more in order to achieve the current guidelines.

*“Physical activity remains the best buy for public health”*

*Dr Domhnall MacAuley*

## **Physical Activity in Older Adults**

Promoting physical activity is key to preventing and treating disease and disablement in older adults. ‘Active travel’ (walking and cycling for transportation) may play a key role in keeping older adults physically fit and active. To develop effective interventions, a clear understanding of the influences on active travel behaviour in older adulthood is required. Later adulthood is typically characterised as a transition from working life to retirement, and is often associated with the development of chronic diseases and loss of function. This stage of life therefore represents an opportune time to intervene to increase physical activity behaviour and, in turn, encourage healthy ageing. The most commonly recommended way to promote physical

activity in this age group is participation in walking, as it is safe and does not require a high level of physical ability.

Walking can be undertaken for a variety of purposes, including recreation and transport. Walking and cycling for transportation (for example, to do shopping or to visit friends), is a particularly relevant physical activity to older adults as it is healthy, cheap, enjoyable, and easy to integrate into the daily routines. We have previously shown that although physical activity in itself may not be attractive, many people would be active if for the purpose of social engagement.<sup>12</sup>

*“People often ask me what is the best exercise to do. I tell them, one you will do, and also one you enjoy doing”*

*Prof Steven Blair*

Using data from a Northern Ireland-wide survey,<sup>7</sup> the socio-demographic and environmental characteristics associated with taking some active travel compared to none were analysed. After adjusting for other factors, those who reported taking ‘some active travel’ (10 or more minutes) in the last week, were more likely to be from the ‘most deprived’ neighbourhoods and half as likely to own a car. They were also less likely to have a disability and more than twice as likely to be of good or very good health. In addition, they were more than twice as likely to live in an urban setting and more likely to live in an area that is more walkable (offers greater support for active travel through opportunity and structure).

A number of previous studies have also identified that the characteristics of an older person’s neighbourhood is associated with active travel. The prevalence of commercial/retail neighbourhood destinations (grocery stores, shopping malls, and restaurants/cafes) in urban areas has been shown to be positively associated with the number of walking trips taken by older adults.<sup>13</sup> Planning policy needs to reflect the needs of an ageing society and design neighbourhoods that support independent living and opportunities for active ageing.

Outside of walkable urban environments, many rural areas suffer from poor infrastructure for active transport, with few footpaths, pedestrian crossings and cycle lanes. In rural environments, access to amenities and poor public transport infrastructure limits opportunities for active travel. For example, in Northern Ireland, 41% of disabled and older adult respondents living in rural areas said a boarding point closer to home would encourage them to use public transport more frequently.<sup>14</sup>

### **Physical Activity in People with a Disability**

As the age of the UK population increases, so does the proportion of the population living with a disability or long-term health condition.<sup>6</sup> People with long-standing illness or disability tend to be less active and are less likely to participate in sport than the general population. Little is known as to why this is, or what factors other than their physical health are associated with their lower levels of activity.

Using data from the NI Continuous Household Survey (2007-2011), a recent study identified the level of sport participation and their correlates, among Northern Ireland adults who report long standing illness/disability.<sup>15</sup> From the 13,683 respondents; 3,550 (26%) reported having

long-term illness/disability. Fewer of those with, than without, long-term illness/disability reported sport participation in the previous year (868/3550 (24.5%) v 5615/10133 (55.6%).

Analysis showed that, for the total sample and for those with long-standing illness or disability, sport participation correlated positively with being male, aged 55 years and under, having access to a car, rated their own health as 'fairly good'/'good' in the previous year, engaged in some form of work (either employed or voluntary), and living in an urban location. Also, for those with long-standing illness or disability, being single and less socio-economically deprived correlated positively with sport participation.

### *Time for Action: The Need for Public Health Policy*

Focused public health policy to promote sport participation and reduce health inequalities for people with long-standing illness/disability should target older females, those living rurally, those who are married/co-habiting, socio-economically deprived and who report their health as 'not good' in the past year. Approaches should be considered which do not use the internet. Personal internet access was less for those with, than without, long-term illness/disability (41% v 70%). In addition to public health policies, health professionals who have regular contact with people with disabilities, such as GPs, should where possible target their patients with physical activity counselling to improve health outcomes.

### **Conclusions**

*"If exercise could be packed in a pill, it would be the single most widely prescribed and beneficial medicine in the nation"*

*Dr Robert Butler*

The inexorable slide to a more inactive lifestyle offers worrying projections of future prevalence of morbidity and mortality from non-communicable diseases. Given the ongoing rise of chronic diseases associated with physical inactivity, the associated economic burden, and modest short-term effects of previous interventions, major action is required if we are to change the health of our population.

Clearly there is a lack of knowledge and a need to raise awareness about the levels of physical activity needed to promote health. Knowledge alone is not enough to change behaviour, but it can motivate, and provides an important pre-cursor to physical activity behaviour change. Our findings can inform the development of population-level physical activity behaviour change interventions and therefore have significant public health policy and practice implications to address inequalities in participation. We must move away from a "one size fits all approach" towards tailored, targeted interventions. In order to facilitate this shift, physical activity should be integrated into cross-departmental policies in order to promote, support and facilitate change.

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