



# SPORT AND RECREATIONAL EXERCISE AMONG ADULTS (AGED 16+) IN WEXFORD AND WICKLOW, 2007-2009

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## SUMMARY

- Between 2007 and 2009, 31% of adults surveyed in Wexford-Wicklow actively participated in sport or recreational exercise during the previous week
- 56% of adults undertook a recreational walk during the previous week
- The area has low levels of walking and cycling compared to the rest of Ireland
- Almost one quarter (23%) of adults are effectively sedentary
- Soccer (6.5%), golf (6.2%), swimming (6.0%) and personal exercise (5.0%) are the most popular activities
- Relative to the rest of the country, golf is particularly popular in the area, especially among men
- Over two-thirds of all sporting activity (excluding recreational walking) consists of individual sport and recreation activities, as opposed to team games, which are mostly the preserve of young men
- People of high socio-economic status are much more likely to be active participants
- Active participation is significantly and separately related to each of educational attainment, income and occupational status – those in higher socio-economic groups are much more likely to play
- Men are more likely to play sport than women, but the gender gap narrows with age
- People living in isolated locations are less likely to play sport than those living in villages and towns
- Sedentarism is higher in Wexford (26%) than Wicklow (19%), primarily because of a very low rate of walking for transport in Wexford
- This high level of inactivity applies right across the age spectrum, suggesting that the built environment is not conducive to walking

#### Policy Implications

- Promotion of sport needs to extend beyond team games to be more attractive to women and to adults aged over 30
- People in lower socio-economic groups need to be the primary target for sports promotion in the area
- Given available natural resources, greater efforts need to be made to promote recreational walking among locals in Wexford-Wicklow
- Sports clubs and policymakers need to act within the broader context of efforts to increase physical activity within their communities

## **1. INTRODUCTION**

A body of international evidence demonstrates that our level of physical activity is linked to our chances of developing chronic life-threatening conditions, including heart disease, various cancers, stroke, diabetes and osteoporosis. Because sport and recreational exercise form a substantial part of overall physical activity, their successful promotion has become a worldwide policy aim. Yet much of the policy initiative must be local.

This report provides evidence relating to the sport and recreational exercise activity of adults (aged 16 and over) in Wexford and Wicklow (hereafter 'Wexford-Wicklow'). It aims to be of interest and assistance to those involved in the promotion of sport and exercise in the area, from councils and local sports partnerships, to individual participants and volunteers.

The results are based on telephone interviews with 1,989 adults conducted over three years (2007-2009), as part of the national *Irish Sports Monitor* (ISM), which is a survey conducted by the Economic and Social Research Institute (ESRI) on behalf of the Irish Sports Council (ISC). The ISM asks interviewees about sporting activity undertaken in the previous 7 days. Like all social surveys, the ISM has limitations. In particular, some groups are easier to reach on home telephones than others (e.g. non-working individuals compared to employees). Thus, to counteract any potential bias arising, the data are re-weighted to match the population characteristics of Wexford-Wicklow, as recorded by the Central Statistics Office (CSO). Further details of the aims and methodology of the ISM can be found in ISM Annual Reports (available at <u>www.irishsportscouncil.ie</u> and <u>www.esri.ie</u>).

The primary justification for public investment in sport is to increase physical activity and hence to improve health. Consistent with this aim (and the *Irish Sports Council Act, 1999*), the report defines "sport" broadly, to include recreational exercise (e.g. swimming, gym, dance classes), as well as field games (e.g. soccer, Gaelic football). The ISM also records recreational walking, walking as a mode of transport and cycling for transport, allowing sport to be set in the context of more general physical activity.

In this report, most charts and tables show percentage participation rates in a given activity by a particular group (e.g. the percentage of women who play team sport). However, reporting simple participation rates like this can be misleading. For example, young adults are more likely to play sport than older ones. This may mean that age reduces the tendency to play. But, on average, younger adults have higher educational attainment – a factor that is also strongly linked to participation. So, is age or education the crucial influence? To answer such questions, the analysis uses multivariate statistical techniques that can identify the individual impact of a given characteristic (e.g. gender, age, educational attainment, income, residential location, etc.) while simultaneously controlling for other background characteristics that can affect participation in sport. Thus, where displaying simple participation rates might mislead, the output of a multivariate statistical model is also provided.

# 2. RESULTS

## 2.1 OVERALL PHYSICAL ACTIVITY

In order to place active participation in sport in context, Table 1 provides a summary of overall physical activity in Wexford-Wicklow, together with the equivalent national figures. Given the demographic profiles of the counties, both of which have a relatively low proportion of adults aged under 30, the 31% participation rate for playing sport is in line with the national picture. Based on Census 2006, the 31% rate for active participation in sport translates into approximately 62,000 adults playing regular sport in Wexford-Wicklow.<sup>1</sup> However, all other forms of physical activity are below national levels, especially walking as a mode of transport. The upshot of this pattern is that almost one quarter of the population (23%) is effectively sedentary – a significantly higher rate of inactivity than the national rate.

Activity	%	National %
Played sport in previous 7 days	31	33
Walked for recreation in previous 7 days	56	59
Regularly walks for transport	30	46
Regularly cycles for transport	8	11
Sedentary	23	17

#### Table 1: Summary of physical activity

Closer examination reveals that this finding is primarily driven by walking and cycling habits, including a significant difference between the two counties with respect to transport activities. Walking and cycling for transport is significantly less common in Wexford than in Wicklow, very much so in the case of walking for transport (22% versus 40%). Consequently, Wexford has a significantly higher rate of sedentarism, at 26%, which compares to Wicklow's 19% and is very high by national standards. We return to this issue later in the report.

## 2.2 MOST POPULAR SPORTING ACTIVITIES

Table 2 lists the most popular sporting activities undertaken in Wexford-Wicklow, for all adults and separately by gender. Only activities with a recorded participation rate of at least 1% are listed. Given the sample of 1,989, the percentage figures should be regarded as indicative rather than precise – they could vary by 1-2 percentage points either way.

<sup>&</sup>lt;sup>1</sup> This figure is approximate. Given the impact of the recession, the population may have varied significantly during the 2007-2009 period.

Overall, the top four sports are soccer, golf, swimming and personal exercise<sup>2</sup>, all with participation rates of 5% or more, i.e. over 5% of adults over 16 had played the sport in the previous week. These four sports also dominate the national picture, but soccer and especially golf have a strong showing in the area, with personal exercise a bit lower than the national figure. Two other aspects of Table 2 also differ from national figures. First, hurling/camogie is more popular than Gaelic football although, perhaps in line with reputation, this turns out to be true only in Wexford. Second, the participation rate for cycling (which includes cycling for leisure and sport, but not for transport) is unusually low in the area.

All		Male Female			
	%		%		%
Soccer	6.5	Soccer	11.9	Swimming	7.6
Golf	6.2	Golf	11.2	Exercise	7.0
Swimming	6.0	Hurling	4.4	Dancing	2.9
Exercise	5.0	Swimming	4.3	Jogging	1.8
Hurling/camogie	2.7	Gaelic Football	3.7	Golf	1.2
Jogging	2.3	Exercise	3.0	Horse Riding	1.2
Gaelic Football	2.2	Jogging	2.8	Camogie	1.2
Dancing	1.9	Cycling	1.3	Yoga	1.2
Horse Riding	1.2	Rugby	1.3	Soccer	1.1
		Horse Riding	1.2		

#### Table 2. Most popular sporting activities<sup>3</sup>

There are large gender differences. The strong preference for soccer and golf is a male phenomenon. Men participate in a mixture of team and individual activities, while female activity is dominated by individual activities, especially swimming and exercise, the majority of which are non-competitive. Greater insight into this pattern can be had from Figure 1, which shows participation in individual and team sports by gender and age.

Figure 1 has several striking features. First, although some of the most popular sports are team sports, individual sporting activities account for more than two-thirds of total activity, with an overall participation rate of 24%, versus 10% for team sports. Second, the gender gap for individual sporting activities is much smaller: overall, the participation rate for males, at 39%, is much higher than that for females, at 23%, but for individual sports this reduces to 27% and 21% respectively. Third, many young adults, especially women, appear to drop out of team sport fairly rapidly with age. Lastly, there is a striking rise in participation in individual sports for males aged over 35,

<sup>&</sup>lt;sup>2</sup> This category includes various forms of personal exercise, including going to the gym, "working out", doing exercise routines at home, as well as attending exercise, aerobics or keep-fit classes.

<sup>&</sup>lt;sup>3</sup> From this point onwards, all results presented are for Wexford-Wicklow only. Readers interested in comparative national figures should consult the ISM Annual Reports, available at <u>www.irishsportscouncil.ie</u> and <u>www.esri.ie</u>.

which is unusual compared with Ireland as a whole. Further analysis reveals that much of this increase is due to men taking up golf.



Figure 1: Active participation in individual and team sports by gender and age

## 2.3 SOCIO-ECONOMIC STATUS AND ACTIVE PARTICIPATION

Using a multivariate statistical model to identify the individual impact of various characteristics on a person's likelihood of playing sport, eight factors emerge as having a strong association with active participation in sport in Wexford-Wicklow. These are educational attainment, gender, age, income, occupation, health, residential location and retirement. The first four factors are also the most significant factors countrywide.

This section concentrates on the impact of socio-economic status, as measured by an individual's educational attainment, income and occupation. Figure 2 shows that there is a very strong relationship between the likelihood of playing sport and each of these socio-economic indicators. Individuals with higher educational attainment, higher income<sup>4</sup> or who work in higher skilled occupations are very much more likely to play sport. The implication is that socio-economic status has a very strong impact on the likelihood of playing sport in Wexford-Wicklow. A notable aspect of this relationship is that those in the lowest income categories and the unskilled are particularly unlikely to play sport, with fewer than one in ten adults in these groups engaged in active participation.

<sup>&</sup>lt;sup>4</sup> Measured as weekly household income after tax.



# Figure 2: Participation in sport by educational attainment (top left), weekly household income (top right) and occupation (bottom)

These results are not straightforward to interpret, however, because educational attainment, income and occupation are all themselves related, i.e. more educated people tend also to have higher earnings and to work in more skilled occupations. Nevertheless, the multivariate statistical model, which simultaneously controls for these effects, reveals that all three are strongly statistically significant. That is, there is a strong impact of income and occupational status on playing sport even when comparing two individuals with the same level of education, and so on.

The fact that these effects are strong and substantially separate is more easily understood from Figure 3, which simultaneously breaks down participation by educational attainment and income. To preserve sample size, each is given in just three categories, with males and females combined. The pattern is very clear. For each level of educational attainment, additional income significantly increases the likelihood of playing sport, while for each level of income, higher educational attainment increases the likelihood. These differences in participation rates are large. Furthermore, because those with higher educational attainment tend also to have higher incomes, it is worth noting that the population is mostly concentrated in either the far right or the near left corners of this chart. In short, there is a very strong socio-economic divide with respect to participation in sport in Wexford-Wicklow.





The link between income and playing sport may be partly due to the simple fact that playing sport costs money, including costs associated with equipment, clothing and transport, as well as direct costs such as club membership fees or other ways to access facilities. The impact of educational attainment is probably more subtle. It may partly reflect the sporting opportunities associated with staying on in full-time education for longer, thereby continuing to have access to a broad range of activities during young adulthood – a period when people often switch from a team to an individual sport, while many others drop out from sport altogether. But it is also likely that the social networks formed during this period are beneficial from a sporting perspective, again offering greater opportunities to try new activities. Similarly, the fact that an individual's occupation matters even after educational attainment and income are controlled for, suggests the possibility that the social networks and norms that surround different workplaces may contribute to involvement in sport.

### 2.4 DEMOGRAPHY AND ACTIVE PARTICIPATION

Figure 5 provides participation rates for different categories of age and gender. As indicated previously, the overall participation rates for men and women are 39% and 23% respectively. This is a large gender gap, although it narrows in middle age, especially among the 56-65 year-old group.



Figure 5: Active participation by age and gender

Figure 5 is also not straightforward to interpret, however, because characteristics of older and younger adults other than age affect whether someone plays sport. For example, younger adults are, on average, better educated, which we have already seen is positively associated with participation. Furthermore, women (especially younger women) have higher average educational attainment than men. Consequently, it is unclear what is really driving the relationship between active participation, gender and age. Using a multivariate statistical model makes it possible to disentangle the effects. For instance, the model can compare the likelihood of participation across men and women of *different* ages, but the *same* educational attainment, income and occupation (and other background characteristics). In other words, it makes it possible to compare like with like, to isolate the impact of gender and age independently of these other factors.

For illustrative purposes, we use the model to estimate predicted participation rates for "typical" adults in Wexford-Wicklow, whose characteristics are selected to get them as close as possible to a median individual for the area. The hypothetical individuals all have a Leaving Certificate, average income of €500-749 per week, a skilled manual occupation, live in a town, and do not suffer from ill-health – they differ only in age and gender. Figure 6 then provides predicted participation rates separately for such individuals who differ in only gender by age (in steps of ten years from the median age of 41), but are the same with respect to all other significant background characteristics.





Once the impacts of age and gender on playing sport are statistically isolated like this, it is clear that there is a significant interaction between age and gender. The drop in participation is considerably steeper for males, such that the gender gap in active participation gradually narrows with age. One cause of this difference was suggested earlier by Figure 1: a higher proportion of men play team sports as young adults, from which they are very likely to have dropped out by their mid-thirties. The activities that are most popular among women (e.g. swimming and personal exercise) are more likely to be continued as people progress through middle age.

Nevertheless, the gender gap in active participation in Wexford-Wicklow is large and remains significant right up to old age. Given Figures 5 and 6, a reasonable interpretation is that much of the policy challenge with respect to males is to keep them active in sport (i.e. to prevent them dropping out), while the policy challenge for females requires greater focus on getting them actively involved in sport in the first place.

Another significant influence on the likelihood of playing sport is where people live. The ISM records whether people live in a town, village or isolated location. Figure 7 (left) provides participation rates by residential location. The data reveal a clear inverted-U pattern, with people living in villages more likely to play sport than those living in towns and, especially, isolated locations. However, individuals living in different types of location also differ by socioeconomic characteristics. Once these differences are controlled for, using a multivariate statistical model, the driving forces behind this effect become clearer. Figure 7 (right) also provides predicted participation rates for a typical male and female of median age, who is healthy and has the same educational attainment, income and occupation. The analysis reveals that the main impact of residential location is that living in an isolated location lowers the likelihood of playing sport in Wexford-Wicklow. It is likely that this finding reflects the availability of opportunities to play sport in rural areas with transport difficulties.



Figure 7: Active participation by residential location (left) and predicted participation rates by residential location for a "typical" male and female after controlling for socio-economic characteristics

In addition to those already outlined, three other factors measured by the ISM are related to the likelihood that someone in Wexford-Wicklow plays sport. First, those who have retired have a significantly higher chance of being active participants, indicating that additional free time makes it easier to be active. Second, those with a disability that limits the possibility of participation are considerably less likely to play any kind of sport. Lastly, people whose parents were actively involved in sport are more likely themselves to play. This is one reason, among others, for the strong link between playing and socio-economic status, since those from higher socio-economic groups are more likely to have had parents who played sport.

### 2.5 SEDENTARISM

Complete physical inactivity carries particular risks to health. An analysis of which social groups are most likely to be sedentary in Wexford-Wicklow, especially given the particularly high rate of sedentarism in Wexford, is consequently of interest from a policy perspective.

Here, someone is defined as sedentary if they meet four criteria: (1) did not play sport in the previous 7 days, (2) did not take a recreational walk in the previous 7 days, (3) does not walk regularly for transport, and (4) does not cycle regularly for transport. This definition is imperfect, because it is limited to recreation and transport activity. Most notably, some individuals undertake significant physical activity associated with work, either through a manual occupation or via domestic duties, which is not recorded by the ISM. Nevertheless, the results offer a reasonable guide to inactivity, especially as it can be affected by policy relating to sport and physical activity.

As described in Section 2.1, the proportion of the population that is completely inactive in the Wexford-Wicklow area is high by national standards. While this is especially true in Wexford, the rate of sedentarism in Wicklow is also relatively high. A multivariate statistical model reveals that the factors that affect the likelihood of being inactive in the area are not dissimilar to those found nationally. Lower socio-economic status, especially low educational attainment, increases the likelihood of being sedentary. Men and women are as likely as each other to be sedentary, because while men play more sport, women tend to do considerably more walking, both for recreation and transport.

The patterns of inactivity by age require closer scrutiny however. Figure 8 provides rates of sedentarism for Ireland as a whole, and separately for Wicklow and Wexford. Relative to the national pattern, it is younger and older adults in Wicklow who are most likely to be sedentary. In Wexford, by contrast, young adults are no more likely to be inactive, but middle-aged and older adults are very much more likely to be so.



#### Figure 8: Sedentarism by age

In fact, most of these differences can be traced to a lack of walking activity, which appears to be mainly responsible for the high level of sedentarism in both counties. At 56% (55% in Wexford, 56% in Wicklow), the proportion of the population that had undertaken a recreational walk is in the previous seven days is significantly below the national figure of 59%. This is arguably

surprising given the extent of coastline and the availability of other areas of natural beauty in both counties, including established walking routes. But the greater difference surrounds walking as a mode of transport. Figure 9 charts the proportion of adults by age who undertake regular (at least once-perweek) journeys on foot.



#### Figure 9: Walking for transport by age

In addition to the very low rate of walking in Wexford, what is striking about this pattern is how consistently the proportions lie below the national figures across the age range. This consistency suggests that the low rate of walking and, by extension, very high prevalence of physical inactivity, may be caused by limits to walking activity that are common to all, rather than lifestyle factors (e.g. car ownership, concerns over safety of children etc.) that would be expected to vary by age and social group. Indeed, the multivariate analysis found no significant effects of car ownership or family structure on the likelihood of being sedentary. An analysis of cycling for transport reveals a similar pattern.

These findings are in keeping with international research, which suggests that the prevalence of walking for transport is largely determined by aspects of the built environment. We return to this issue when considering policy implications in Section 3.

### 2.6 SOCIAL PARTICIPATION

The ISM also records social participation in sport. The survey asks whether individuals undertook volunteering associated with sport (e.g. officiated,

organised, provided transport), whether they are a member of any sports club and whether they attended any sporting events. The results reveal that 11% of adults in Wexford-Wicklow volunteered for sport during the previous week, 30% are members of some type of sports club and 20% had attended a sporting fixture. The proportion of volunteers and spectators is somewhat higher than the equivalent national figures. This is to be expected given the demographic profile of the two counties, which have a relatively high proportion of adults aged between 30 and 50, who are most likely to have school age children and, consequently, more likely to volunteer or spectate.

## **3. POLICY IMPLICATIONS**

With respect to participation in sport, Wexford-Wicklow has much in common with the rest of the country, in terms of who plays sport and who does not. There are many potential policy responses to the findings – too many to summarise here. Policymakers and others are encouraged to consult recent publications that have dealt specifically with these influences on active participation (*Fair Play? Sport and Social Disadvantage in Ireland; Sporting Lives; ISM Annual Reports;* all available at <u>www.irishsportscouncil.ie</u> and <u>www.esri.ie</u>). This final section, therefore, offers an indicative rather than exhaustive examination of policy implications. We focus on three findings that may be of relevance in Wexford-Wicklow: the balance between team and individual sports, the strength of socio-economic factors, and the high incidence of sedentarism.

The large majority of sport played by adults in Wexford-Wicklow consists of individual rather than team activities, with the latter highly concentrated among young males. Very few women play team sports beyond 25 years of age. This age and gender pattern has implications for the effectiveness of policies primarily based on promoting team games to young people. The impact of such policies on active participation in sport across all adults is likely to be limited, unless simultaneous efforts are made to encourage participation in other activities that are more appealing to both genders, women in particular, and that are likely to be continued into middle age and beyond (e.g. swimming, personal exercise, etc.).

The relationship between socio-economic status and playing sport in Wexford-Wicklow is strong. It is worth emphasising, therefore, that the results imply both a greater need and a greater potential for increasing participation among lower socio-economic groups. There is a good case for ensuring that members of these groups are the primary target for sports policy in the area, and that the design and marketing of participation programmes reflects this.

The high proportion of the adult population in the area that appears to be sedentary, especially in Wexford, is a matter of serious policy concern given the health risks associated with inactivity. However, since the main cause of the high rate of sedentarism seems to be walking for transport, sports policy is limited in what it can achieve. Nevertheless, both counties have a low rate of recreational walking, as well as walking for transport, despite possessing natural resources for walking that are routinely promoted to tourists. Greater promotion to and use of these resources by the local population is clearly warranted. Furthermore, sports policy exists in a broader context of efforts to increase physical activity, and the primary justification for spending public money on sport is to increase physical activity. Thus, sports organisations and policymakers should arguably be local advocates for efforts to increase physical activity and to improve health more broadly than through their own specific sport. Part of that effort might be to campaign locally and to use their influence to ensure that local amenities are kept, or made walkable, and to promote local walking and cycling more generally.