

Sports participation in Scotland: trends and future prospects

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Executive Summary

Introduction

This report is about sports participation in Scotland, past, present and most importantly future. The research that underpins it has been commissioned by the Observatory for Sport in Scotland (OSS); Scotland's independent think tank focused on community sport. The impetus for this research has come from a growing unease that all is not well with community sport in Scotland with 'storm clouds forming on the horizon' around the prospect of decreasing participation and physical activity levels and its wider impact on society.

This research shines the spotlight of evidence on community sport in Scotland to provide a richer picture of the true state of participation. The findings are of interest to all stakeholders concerned about its future and the part they can play in helping it prosper. It is hoped that the findings, conclusions and questions that emerge will inform the start, not the end, of a process of strategic debate and self reflection that helps stakeholders to shape effective policy and practice changes that secure and sustain a thriving future for community sport in Scotland.

Research aims and approach

This research is focused on:

- Assessing the quality of the current evidence base of national statistics on participation in sport in Scotland, examining both its strengths and weaknesses.
- 'Mining' the current national evidence to explore levels and patterns of participation and trends over the last 10 to 20 years.
- Comparing the more salient trends with experience in the Netherlands and Denmark as a basis for a wider international debate on transferable knowledge and learning.
- Exploring the wider societal 'drivers' related to participation in sport and their possible impact on participation over the next 10 to 20 years through both empirical analysis and qualitative research with key stakeholders.
- Modelling possible future scenarios of participation in sport in Scotland and exploring the policy implications.
- Proposing an agenda and context for a national debate on where participation in sport in Scotland is going, its influences, and where and how the future might be shaped.
- Presenting proposals to address weaknesses identified in the evidence base for community sport in Scotland.

The methods employed to carry out this research involved a combination of quantitative and qualitative techniques. The statistical analysis on sports participation focused on the Scottish Household Survey (SHS) and the Scottish Health Survey (SHeS). The qualitative research with stakeholders took place early in 2018 and helped frame the empirical analysis. The statistical models developed at Sheffield Hallam University explore the link between selected socio-economic drivers and sports participation.

Defining and measuring participation in sport

The primary focus of this report is on 'community sport and recreation', which can be differentiated from the performance improvement end of 'elite sport' and from wider physical activities that extend, for example, to 'active travel'. Community sport takes place on a spectrum from organised to informal engagement that extends and overlaps with the wider scope of physical activity.

Areas are identified in the report where data availability for sport from government surveys is not ideal - where it has constrained the depth of analysis and insight that could be brought to this research and more widely where it limits its value to policy makers. These include:

- **The content of the survey questions.** The Scottish Household Survey (SHS) has been limited in most years to the very basic measures of prevalence.
- **The lack of any overarching theoretical foundation for the question content.** This limits insight and understanding of sport behaviours and influencing factors.
- **The lack of statistically reliable data on sports clubs and sports club membership** in Scotland and trends over time.
- **Limitations of sample size.** Although good by national survey standards sample sizes are often insufficient to provide a level of precision required to monitor changes in what for most sports are relatively small prevalence activities within the wider population.
- **The cross-sectional nature of the two primary data sources.** Participation in sport is by its nature a temporal phenomenon subject to considerable fluctuation in terms of dropping in and dropping out over the life course, which can only be explored properly by a longitudinal research design.

Trends in participation in physical activity in Scotland - an overview

This section provides a context for the sport analysis that follows and refers to the link to obesity and overweight in the population.

Findings

- Trends in both those adults meeting guidelines and those classified as the most sedentary (very low activity) have shown little change over a five-year period from 2012 to 2017 with an indication of a slight increase from 62% to 65% in the former (driven by increases in recreational walking - see below).
- Over the same period the percentage of men (71% in 2017) meeting the physical activity for health guidelines has been significantly higher than women (60%) with no sign of the gap narrowing.
- There has been a slow but gradual increase in the proportion of children (aged 2 to 15 years) meeting physical activity guidelines over the period 2008 to 2016. The percentage of boys meeting the guidelines (79% in 2016) has shown little change while girls meeting the required activity levels (72%) has increased.
- From the age of 8 to 10 years onwards the activity levels of boys and girls diverge with a substantial decrease in the percentage of girls meeting the guidelines. This decline is seen later for boys but culminates in the percentage of 13 to 15-year-old girls meeting physical activity guidelines dropping as low as 11% and to 24% for boys.

Concluding comments

- **Scotland has broadly seen very little change - up or down - in physical activity levels over the last decade as far as adults is concerned.**
- **For girls the 22 percentage point decrease in those meeting guidelines between the ages of 8 to 10 years and 13 to 15 years is a major challenge with, for many, the seeds of a life of sedentary behaviours and associated chronic health problems being sown at this young age.**
- **These trends have occurred despite heightened public policy concern and political consensus over this issue. And many might think that there is little reason to believe that this pattern will not persist over the next 10 years and beyond.**
- **The picture of a nation that is too inactive for its own good is stark, as are the consequences. Scotland is currently near the top of the world's league table of countries that are overweight and obese.**

Trends in sports participation in Scotland - an overview

This section provides a broad overview of trends in participation in sport by adults and young people.

Findings

- Adult participation in any sport excluding walking has remained constant over the period 2007 (53%) to 2016 (53%).
- Any overall growth in sports participation has been driven by the inclusion of recreational walking which has reported significant increases since 2010. The percentages taking part in sport including walking has increased from 73% in 2007 to 81% in 2017.
- The drop-out with age remains significant and is showing no signs of decreasing with a halving of the participation rate between the ages of 16 to 25 years and 66 to 75 years (from 69% to 35% in 2016) a constant feature throughout the 9-year period.
- The percentage of children aged 2 to 15 years 'participating in any sport in the last week' has shown a slight fluctuation year-on-year but the overall trend is one of little change over the 9-year period 2008 to 2017. Girls participation has remained static over the same period (67% in 2008 and 66% in 2017) while boys has decreased since its peak of 76% in 2009 to 67% in 2016.

Concluding comments

- **On the face of it, participation trends in sport in Scotland over recent years appear generally to be static. But we might question whether static is acceptable in a country that rates amongst the highest in the world for levels of obesity and overweight and where substantial proportions of the population are sedentary.**
- **There are worrying signs that young people's participation in sport is starting to decline. There is insufficient evidence to suggest it is the start of a downward trend, but the figures are currently heading in the wrong direction.**
- **The evidence points to the next generation of Scots being more inactive and less sporty than their parents and grandparents were at the same age with the consequences of deteriorating health and wellbeing.**

Participation in sport in Scotland - a deeper dive

This section takes a 'deeper dive' below the apparent surface calm to explore the undercurrents that are characterising and shaping sports participation in early 21st Century Scotland. The picture is a much more turbulent one than the overall statistics might suggest.

Findings

Inequalities - age, gender and social class

Age

- There is a clear relationship between increasing age and likelihood of dropping out from sport. Between the ages of 16-25 years and 46-55 years participation rates excluding walking drop from 69% to 51%.
- Over the last 10 years (2007 to 2016) rates of participation in the 'benchmark 16 to 25-year-old group' in Scotland has declined from 74% (2007) to 69% (2016) with a 5 percentage point decline since 2013.
- An '*Index of sports participation drop-out*' (drop-out for each age cohort referenced to the participation rate of 16 to 25-year-olds) shows that little if any in-roads have been made to drop-out with age over the 10-year period 2007 to 2016.
- Participation rates in sport (at least once in the previous week outside of school lessons) have decreased between 2014 and 2017 for children aged 11 to 12 years from 77% to 70% and for those aged 13 to 15 years from 64% in 2014 to 59% in 2017.
- Football, the only team sport to register in the top 10, stands out as having the highest proportionate drop-out between the ages of 16 to 24 years and 25 to 34 years.
- Golf, bowls and dancing are examples of sports that have a more positive relationship with age. In the case of bowls participation peaks amongst those aged 60-74 years and 75 plus while golf participation peaks at 60-74 years.

Gender

- Sports participation rates in Scotland are significantly higher for men than they are for women. Gender difference is more marked when walking is excluded and the 'gender gap' in sports participation (excluding walking) has persisted over the last 10 years (58% men to 49% women in 2017).
- The 'gender gap' in sports participation starts very young. More girls (79% in 2017) than boys (76%) participate at the age of 8-10 years but girls' participation drops markedly as they move into their teenage years. The outcome is that by the age of 13-15 years more girls do not participate in sport (55%) than do (45%).
- More women than men participate in recreational walking, dance, keep fit/aerobics and swimming, but for all the other sports listed men significantly outnumber women. This is particularly noticeable for more traditional organised sports like golf, football and bowls.

Social class

- Those who had a degree qualification in 2017 had a participation rate in sport of 68% compared with a rate of 49% for those who left school with some qualification but below that of Higher and a rate of 26% for those who left school with no qualification.
- People living in the most deprived areas of Scotland are much less likely to participate in sport (42% excluding walking in 2017) compared with those living in the least deprived areas (65%). Of the sports listed only football, snooker/billiards and pool, and to some extent bowls, have any reach into people living in the most deprived communities.
- Of note is the difference in participation in fitness related activities between the most and least affluent areas with a halving of the participation rates in keep fit/aerobics, multigym/weights and running/jogging.

Sports - formal, informal, increasing and decreasing

- In four of the six 'fitness related sports' (keep fit/aerobics; multigym/weight training; cycling and running/jogging) there has been an upward trend in participation (swimming and dancing are the exceptions). In the three more traditional sports (football, golf and bowls) the trend is in a downward direction.
- Significant change has taken place in the sporting landscape over a 10-year period (2007 to 2016) with 'fitness related activities' (such as keep fit; aerobics; multigym; weight training; yoga; Pilates; and tai-chi) overtaking 'individual sports' (such as golf, bowls, tennis, boxing, martial arts) as the sport of choice for 16 to 25-year-olds (38% and 22% respectively).

Frequencies - growth of an 'active class'

- Changes are not only taking place in the sports that people play, but also in the frequency of play. Whilst the percentage of adults taking part overall (at least once in the previous 4 weeks) has remained flat over the last 10 years the percentages participating more frequently - once a week and three times a week - have shown a steady upward trend which is more marked in the highest frequency group (an increase from 24% of the adult population in 2007 to 30% in 2016).
- Accompanying the growth in a more frequent group of participants is an upward trend of people taking part in multiple sports in a 4-week period from a low of 9% in 2010 to 12% in 2016.

Geography and sports participation - variations and change

- There is considerable variation in participation rates in sport across different local authorities in Scotland. The extent of the variation is shown by comparing the average of sports participation rates (for 2015-17) for the top 'performing' quintile of local authorities (58%) with that of the bottom performing quintile (42%). This difference of 16% is large and significant.
- Comparing changes in sports participation rates over the period 2007/8-2011 to 2015-17 (based on three-year averages) only 9 local authorities have seen an increase in participation while 23 have witnessed a decrease.

Concluding comments

- It is of concern that Scotland has shown no signs over the last 10 years of increasing the 'benchmark participation rate' in young adults or in making in-roads to attrition rates with age.
- Viewed through the lenses of gender and social class Scotland is a 'divided sporting nation'. The structural inequalities of gender and class in sports participation appear to be entrenched in Scottish society with little change over the last 10 years despite public policy priorities targeting these groups.
- An overall theme of this section is that the apparent surface calm in community sport in Scotland as reflected in the overall trends in participation hides a turbulent undercurrent. Three strong undercurrents may be highlighted as follows:
 - The trend towards engagement in fitness activities dominates and grows alongside a parallel decrease in the more traditional and organised sports participation market.
 - Increasing polarisation between classes - the growth of an 'active class', which, in disposition and behaviours, is a world apart from an increasingly left behind 'unsporty and inactive class' that now makes up a significant minority of the Scottish population.
 - The large geographical variations in participation between local authority areas, only explained in part by variations in population density, demography and levels of deprivation.

International comparisons: Scotland, the Netherlands and Denmark

This section explores comparative differences between trends and patterns of participation in Scotland (5.40m pop.), the Netherlands (17.08m pop.) and Denmark (5.77m pop.). Comparisons are made on an 'index' (relative approach) that show change over time. It is important to make clear that these comparisons are at a very broad and to some extent descriptive level. There is no attempt here to try to understand how the sport systems in the three countries came to be where they are or why the differences have occurred. This is an area highlighted for further research in the final section.

Findings

How does participation in the UK compare with Denmark and the Netherlands?

- Denmark has the third highest reported participation rate in Europe (adults who said they exercised 'regularly or with some regularity' i.e. at least once a week) behind Finland and Sweden. The Netherlands is the highest ranked non-Scandinavian country in 4th place behind Denmark while the UK sits in 10th place some 20 percentage points behind Finland in first place and 16 points behind Denmark.
- When compared on a more frequent level of participation (percentages who exercised or played sport 'regularly', i.e. at least 5 times a week) the UK (13%) performs at a similar level to Denmark (12%) and above the Netherlands (6%). This is consistent with the earlier analysis that identified a growing trend in Scotland towards a very active and sporty minority.
- The UK has 37% of the adult population who report that they 'never participate in exercise and sport' compared with 20% in Denmark and 31% in the Netherlands.

Scotland and the Netherlands compared

- Both Scotland and the Netherlands experienced a similar dip in rates of participation in 2009 followed by slow growth to 2013 and in the case of Scotland that growth extending to 2014. Since 2013/14 participation has remained static in both countries.
- There was no 'gender gap' in participation in the Netherlands up until 2011. Since 2011 men's participation in the Netherlands has been higher than women but only marginally. The picture is very different in Scotland with a large and persistent gender gap with men having much higher participation rates than women and little sign of the gap narrowing.

- Social class has a major impact on participation in sport in both Scotland and the Netherlands, but comparative analysis suggests that the class differences are greater in Scotland.

Scotland and Denmark compared

- Statistics show the success story of community sports participation in Denmark with a continuous and sustained increase in participation between 1987 and 2011. However, in Denmark participation rates dipped post 2011 for the first time in the country's recent history.
- Unfortunately, the time series for Scotland is much shorter than for Denmark. The pattern of a peak in 2011 with a subsequent dip in participation is similar, although Scotland did not experience the 'growth spurt' between 2007 and 2011 seen in Denmark.
- In Denmark there is little drop-out in participation with age while in Scotland the drop-out in participation with age starts early and accelerates into middle and older age. Those aged 66 to 75 years in Scotland are 50% less likely to participate than 16 to 25-year-olds when recreational walking is excluded whereas in Denmark participation peaks in older age at 60-69 years.
- In Denmark women are just as likely to participate in sport as men and may even be slightly more likely to participate than men. In Scotland, depending on the definition used, sports participation by women is some 20% lower than men's, and the gap is showing no sign of narrowing.

Concluding comments

- **The greatest differences in sports participation in Scotland compared with that in the Netherlands and Denmark relate to age and gender. In both the Netherlands and Denmark, the overall high participation rates are underpinned by equality in participation between men and women.**
- **Some of the broad challenges facing sport are not unique to Scotland. Even in countries like the Netherlands and Denmark which set the bar there are signs of participation coming under pressure and issues of 'sporting inequality' linked to social class.**
- **All three countries will be concerned about a potentially 'left behind' inactive and 'unsporty' group, but the scale of this group in the UK (and by inference Scotland) - over a third of the population - makes it a greater policy issue.**
- **There are limits to this analysis. It provides insight to key differences that define community sports participation in Scotland compared with the Netherlands and Denmark and points towards 'the art of the possible' and potential shared problems and challenges. But showing the differences is one thing; understanding why they occur - and most importantly the lessons that can be learnt from these countries that are culturally transferable - is the next critical stage.**

Drivers of community sports participation - a glimpse of the future?

This section widens the field of vision beyond sport to explore the social, economic and cultural drivers referred to here-on-in as 'the (key) drivers' that impact on sports participation and at times are impacted by it. It involved a qualitative exercise with a range of influential stakeholders in Scottish sport.

Findings

- Analysis of the responses from a range of stakeholders in Scottish sport suggests a pessimistic view about the direction of travel for sports participation with 8 of the 13 key drivers thought to be pushing down rather than pulling up participation.
- The drivers that were felt to have the greatest downward impact were 'provision-austerity in public investment' followed by 'health status/overweight/obesity' and 'socio-economic inequality'. At the other end of the spectrum 'gender and sport - societal shift or more of the same' was felt to be likely to pull sport participation up from current levels, as were 'new age fitness and health' and 'access to open space and countryside - low density rural versus high density urban'.
- Generally, the stakeholders in Scottish sport engaged in this exercise believed that public policy could make a positive difference to the way these drivers impact on sport if the right choices were made and resources

allocated. This was particularly felt in relation to 'sport and education' and 'provision- austerity in public investment'.

- Five drivers emerged as a priority - health status/overweight/obesity; social media and technology - the distracted young; sport and education; 'socio-economic inequality'; and 'provision - austerity in public investment'.
- A number of drivers have been identified as posing challenges with stakeholders attaching a sense of negative inevitability to them. Of concern is the 'social media' (new technology) related driver and to a lesser extent the 'volunteers' driver.

Concluding comments

- **This section takes a wide-angle lens view of sport in Scotland. This sees sport not as an isolated activity but as one that is socially, economically and culturally framed, influenced and impacted.**
- **It would be overly negative to say that sport is a 'hostage' to these wider trends. Sport itself can make a difference. But it would be a failure of vision and imagination if sport policy was not to recognise the critical interdependencies it has with them.**
- **The picture that emerges from the qualitative research with stakeholders is that although there is a sense of 'determinacy' for some of the key societal influences on sport there is a greater belief of 'agency' - that we have choices and that we can make a real and positive difference - if there is the political will to do so, the resources made available and the insight to drive innovative practice.**
- **The future is seen to pose both opportunities and threats. Stakeholders view opportunities in how women are being empowered in society and, as a consequence, how they relate to sport; and how a more educated society can become a more active and sporty one.**
- **However, these positives are tempered by concerns, including the impact on sport of increasing socio-economic inequalities; the disproportionate impact on public services for sport with austerity; and a pervasive unease about where trends in social media and technology may be taking us.**

Modelling Scotland's sporting future - what might sport in Scotland look like in 10 years' time?

In this section a more quantitative perspective is taken on what the future might look like in Scotland over the period 2018 to 2028. The modelling approach taken was based on examining trends and associations between sports participation and selected key socio-economic and cultural drivers. The modelling did not seek to forecast or predict the future - but examined possible projected futures or scenarios. Three futures were explored - one where the trends continued ('On Trend'); one where we made pessimistic assumptions about the direction of travel of the driver ('Pessimistic Scenario') and one where we made optimistic assumptions about the direction of travel ('Optimistic Scenario').

Findings

- On current trends in overweight and obesity in the population sports participation rates in Scotland will be pushed down to 50% by 2028 from 53% in 2017. Effective intervention could give a 10 percentage point boost to participation taking it to 60% and the opposite is true in the Pessimistic Scenario where, with increasing overweight and obesity, participation rates could fall to as low as 43%.
- The key driver on social media and technology refers to 'the distracted young'. It was not possible to model children and young people's use of the internet and its impact on their sports participation for this research. As an alternative, intensive (daily) internet use and adult participation was modelled - and the trend appears to be benign based on these adult indicators. But any significant change to that trend could have a large impact on sports participation with a 7 percentage point range between the Optimistic and Pessimistic Scenarios.
- Modelling shows the extent of the possible influence of the key driver on socio-economic inequality with a 10 percentage point range in participation rates in sport between the Optimistic and Pessimistic Scenarios for 2028 (from a possible high of 56% to a low of 46%).

- Modelling shows some association between investment in sporting events and sports participation, but the impact is small and likely to be of little significance to Scottish community sport over the next 10 years.
- An overall 'Total Model' of sports participation in Scotland that combines the modelling of the associations for each of the 8 key drivers into one composite model shows a range of 8 percentage points difference in sports participation projected over the next 10 years to 2028 from a possible high (Optimistic Scenario) of 55% to a low (Pessimistic Scenario) of 47% with a trend projection of 51%.

Concluding comments

- **The modelling and analysis presented is exploratory and innovative, dealing with associations and not direct cause and effect, bound by a theoretical underpinning.**
- **The value of such an exploratory approach to Scotland's sporting future is justified at a number of levels. In particular, it raises awareness of the interdependencies sport has with wider social, economic and cultural trends in society.**
- **Public policies outside of sport impact on many aspects of people's lives in ways that have direct and indirect consequences for sport and the possible extent of these is shown dramatically in the analysis. Sports policy should, therefore, be framed in this context and understand where it is impacted by wider social trends and where it can impact on them, and the likely mechanisms in both instances.**
- **The potential impact of increasing rates of overweight and obesity are shown starkly in the modelling projections. This is a classic example of a two-way relationship where sports participation can impact positively to reduce overweight and obesity while increasing overweight and obesity can have a major negative impact on sports participation.**
- **The assumption of a relationship between investment in sporting events and participation in sport (the sports legacy) has been a feature of public policy for many years but the modelling results show little potential impact from such interventions.**
- **The aggregate results of the modelled projections over the next 10 years show a range of participation rates of 8 percentage points. Given that public policy in sport has greater ambitions it is not unreasonable to argue that it should target an increase towards the upper end of the range modelled.**

The future of community sport in Scotland - a public policy response

The scope of this report has not extended to a critical analysis of sports policy as currently formulated, or to practice as delivered 'on the ground'. This can be done within a wider debate and stakeholder engagement. The evidence in the report does, however, raise 'strategic questions' which could help to focus and frame that debate.

Question 1: How does Scotland develop a strategic vision and framework to best develop community sport?

In many ways addressing this question sets the context for other questions that follow. Sports development policy and practice operating in a strategic vacuum will almost certainly result in fragmented and misplaced interventions with sub-optimal outcomes. 'Corporate plans' and 'Outcome Frameworks' are important but they are not a national strategic plan. A strategic plan requires: a long-term vision and short terms actions; to be connected to wider socio-economic and cultural drivers of sports participation; to be underpinned by a coherent theory of behaviour change; to be consistently understood and interpreted by all key players in the sports system who will know their respective strengths and weaknesses and the contribution they can make; and to be adequately resourced with financial profiles aligned to process and outcome priorities.

Question 2: Where should public policy in Scotland be focused and resources prioritised to best address inequalities in sports participation?

This may seem like an unnecessary question given that all publicly funded agencies and many others in the sport system profess to prioritise addressing social inequalities in sports participation and ways to overcome them.

Yet it must be asked given the evidence in this report that shows that inequalities in sports participation have persisted over many years. The evidence suggests that Scotland is becoming an increasingly 'divided sport society' with the growth of an 'active class' and a left behind 'unsporty and inactive class' that make up a significant minority of the Scottish population. The question extends to a number of factors that include: better understanding of the complexities of social inequality that compound, for example, class with age, gender, ethnicity and disability; resource prioritisation; the design and targeting of interventions; and understanding the nature of behaviour change including attitude formation, motivation and relationship to constraints and barriers. This question also suggests a critical examination of current funding systems to establish who is most likely to benefit and why, and if there are unintended outcomes that subsidise those who least need public subsidies rather than reaching and making a difference to those who need them most. Any such analysis should occur both nationally and in local authorities across Scotland.

Question 3: What issues in children's and youth sport should public policy address in order to design the right interventions?

Public policy in Scotland is committed to improving children's and young people's participation in sport and their sporting experiences. However, there is evidence of decreasing participation rates in sport outside school lessons and high levels of drop-out by girls as they move into their teenage years. Is public policy showing enough innovative ideas and interventions to address these issues? Is Scottish sports development policy reliant on an outdated traditional model of 'sports club membership'? Related questions also emerge including whether public policy is adequately addressing the antecedents of drop-out such as possible decreases in levels of physical literacy amongst pre-school and primary school children? And do we understand the potential impact of increasing social media use and online gaming on young people's leisure time and long-term health?

Question 4: Where should public policy in sport focus attention in the ageing population to best meet the needs of older people?

Evidence presented in this report shows the steep drop-out in participation in sport with age in Scotland, in contrast to other European countries, where such drop-out is shown not to be inevitable. With Scotland facing an ageing population this issue will become more pronounced and of more concern. It raises the question of whether public policy in sport is giving this group enough priority. Like the issues around social inequality this has dimensions that include resources but also extend beyond this to better understanding this changing market, its needs, desires and motivations, and how sport can adapt and create innovative ways to engage this population and provide healthier lifestyles. Related to this is the need for greater comparative international research to better understand what differentiates the countries in Europe with low levels of drop-out with age from Scotland, and how much is culturally determined and how much a consequence of public policy and provision choices.

Question 5: What potential exists for the more traditional organised voluntary sport sector to work in partnership with the commercial fitness sector to their mutual benefit?

Evidence in this report shows that fitness activities are overtaking traditional forms of sport as the activity of choice for many in the population. This now extends to the younger adult age groups which historically have provided the foundation for more organised forms of sport. The concern here lies not in the increase in fitness activities but the substitution of fitness for other forms of community sport, as evidenced by static overall levels of participation. Countering this argument is evidence of a growing minority of more frequent and multi-sport participants suggesting an opportunity for 'cross over' with mutual benefits for both the more traditional voluntary sport club sector and the commercial fitness sector. If this is the case could these two sectors work jointly to promote opportunities to mutual benefit? And are there lessons that the 'traditional organised sport sector' could learn from a more innovative private and commercial sector?

Question 6: What are the important gaps in research evidence available to sports policy and practice in Scotland?

Evidence-based policy and practice is the foundation for effective strategic planning and local delivery. To address this question requires a systematic review of the evidence available and the research gaps that exist. The analysis provided in this report might suggest that there is enough population level evidence to provide the foundation for effective strategic planning for sport in Scotland. In fact, this research has shown that not to be the case. To make sense of what is going on in community sport in Scotland and how public policy can influence it requires measures that extend beyond those currently collected on prevalence to capture the factors that relate to and impact on participation and how it is experienced. This empirical data includes but also extends from the 'what' and 'how many' to the 'why' and 'how' of participation to include the prevalence and development of sporting capital in the population. Through research with various sports stakeholders across Scotland, and comparison with practice in other European countries, OSS has identified the need for a '*National Survey of Scotland's Sporting Life*' to fill this important gap. Other research gaps identified by OSS include a 'Scottish Sports Innovation Exchange' evaluating and presenting innovative practice and an online 'Research Information Hub' that collates and makes sense of the research evidence of value to policy makers and practitioners. The research carried out in this report has identified other evidence gaps including: the number and characteristics of sports clubs and sports club members, and development of a national register to support such research; an exploration of the factors that underpin geographical variations in participation and the impact of public policy intervention; and the impact of social media on children's sporting behaviours and levels of physical activity.

Question 7: How does Scotland build its research capacity to support evidence-based policy and practice in community sport?

Although **sportscotland** invests in research and the Scottish Government in its Health Survey and Scottish Household Survey there are strong arguments to support a review of community sport research capacity, funding and organisation to address this question. Scotland has a tradition of providing high quality academic centres of excellence in sports research, particularly but not exclusively in the areas of sports science and public health. Does Scotland have the capacity and expertise to address the interdisciplinary challenges of community sport that require a collaborative and multi-disciplinary response? A review of existing academic centres of excellence could address this question as part of a feasibility study for establishing an independent and well-resourced 'collaborative centre of community sport research' within higher education.

Section 1

Introduction

This report is about sports participation in Scotland, past, present and most importantly future. The research that underpins it has been commissioned by the Observatory for Sport in Scotland (OSS); Scotland's independent think tank focused on community sport. The impetus for this research came from a growing unease that all is not well with community sport in Scotland with 'storm clouds forming on the horizon' around the prospect of decreasing participation and physical activity levels and its wider impact on society. In its travels around Scotland - speaking to stakeholders, informally and through various forums, OSS has often found this sense of unease bubbling up to the surface. This is the context that motivated OSS to commission this research.

This research shines the spotlight of evidence on community sport in Scotland. The findings are of interest to all stakeholders concerned about the future of community sport in Scotland and the part they can play in helping it prosper. It is hoped that the findings, conclusions and questions that emerge will inform the start, not the end, of a process of strategic debate and self reflection that helps stakeholders to shape effective policy and practice changes that secure and sustain a thriving future for community sport in Scotland.

This report may at first glance provide the prospect of a heavy read weighed down by statistical evidence. But it must be remembered that behind every national statistic, percentage or number there are stories of individual lives lived, opportunities taken, lost or limited, and challenges faced by tens and hundreds of thousands across the length and breadth of Scotland. Every individuals' relationship to sport and physical activity is unique but, in the aggregate, their 'sporting careers', background, circumstances and experiences tell an important story. It is this aggregate picture of people's sporting lives that is presented in this report.

Sport can bring joy, sense of purpose, wellbeing and social connectivity to people's lives. Most people involved in 'delivering' sport have positive stories to tell and will emphasise their successes rather than their challenges. This emotional response is an inherent strength of sport - and must not be undermined - however there are times when it needs to be tempered by hard realities and objective evidence. Revealing the challenges that sport in Scotland faces is not seeking to point fingers, criticise or apportion blame. Quite the reverse - it is seeking to support and facilitate an improved road map to the future that serves the best interests of all stakeholders in Scottish sport and the Scottish nation.

1.1 What this report does and does not include

It is important with any research, and particularly research that is focused on subject matter as broad as community sports participation, to make clear where the boundaries are drawn on what it does and does not include and why. The participation evidence presented in this report is drawn principally from high quality national statistical sources. The report is focused on broad strategic trends in sports participation in Scotland and their relationship to wider societal factors, referred to as 'key drivers'. The empirical evidence is necessarily broad brush and the implications and recommendations that flow from it are strategic in nature. An element of the research is 'speculative' in so far as it examines possible future directions for community sport in Scotland. But these speculative futures (good or bad) are based on current evidence (quantitative and qualitative) that makes them both plausible and possible if not always probable.

The omissions from this report have been made to keep a degree of focus and to keep it manageable whilst not detracting from its central purpose. Some omissions are a consequence of lack of reliable national statistical evidence such as for example statistics on club membership, on specific sports and on use of facilities. Recommendations are made in the final section of this report to address some of these 'knowledge gaps'. Other aspects have been omitted not because they are not important and deserving but because it is not possible to do them justice in a report of this kind. This includes for example issues related to disability and sport, ethnicity and sport and sexual orientation and sport.

Additionally, this report has not sought does to evaluate the evidence of benefit or value of sport - this is well rehearsed elsewhere,¹² or to review the evidence and literature on sport and behaviour change including social psychological models of sport behaviour change, the determinants of sports participation through the life course and the benefits and outcomes associated with sports participation. These are all legitimate and important areas of study and the evidence reviewed in this report provides pointers and raises important questions that impact on them, in particular relating to the theory of sporting capital which addresses many if not all of these factors.

Finally, this research has not included a critical review of current sports policy and practice or the organisational structure and delivery of community sport in Scotland. To do so would be a major area of research in its own right. The evidence it presents does, however, raise significant questions

¹ See: https://sportscotland.org.uk/media/2275/sport-for-change_final-report.pdf

² See: Coalter, F., 2007. *A wider social role for sport: Who's keeping the score?* London, Routledge.

for the way that sports policy is framed and implemented in Scotland if participation rates are to be increased and longstanding structural inequalities overcome. This research provides a platform for a critical and constructive debate on the future of community sport in Scotland around a shared strategic vision and public policy commitment. This report is hopefully the start and not the end of a process that can lead to a transformation of sports policy and practice in Scotland.

Section 2

Research approach

2.1 The aims of the research

This research is focused on:

- Assessing the quality of the current evidence base of national statistics on participation in sport in Scotland, examining both its strengths and weaknesses.
- 'Mining' the current national evidence to explore levels and patterns of participation, the trends over the last 10 to 20 years, and to highlight important findings for policy and practice that emerge.
- Comparing the more salient trends with experience in the Netherlands and Denmark as a basis for a wider international debate on transferable knowledge and learning.
- Exploring the wider societal 'drivers' related to participation in sport and their possible impact on participation over the next 10 to 20 years through both empirical analysis and qualitative research with key stakeholders and experts in community sport.
- Modelling possible future scenarios of participation in sport in Scotland and exploring the policy implications.
- Proposing an agenda and context for a national debate on where participation in sport in Scotland is going, its influences, and where and how the future might be shaped.
- Putting forward proposals to address weaknesses identified in the evidence base for community sport to enhance our ability to track trends, evaluate impact and understand participation behaviours and motivations.

2.2 Research methods

The methods employed to carry out this research involved a combination of quantitative and qualitative techniques as reflected diagrammatically in Figure 2.1. A full report of the 'Future Gazing Exercise'³ and a 'Background note on the Modelling'⁴ are available as separate reports. As is often the case - research is more

³ Rowe, N. F. (2018). *Future Gazing: what do today's stakeholders think about tomorrow's future for community sport in Scotland?* Observatory for Sport in Scotland (OSS), May 2018.

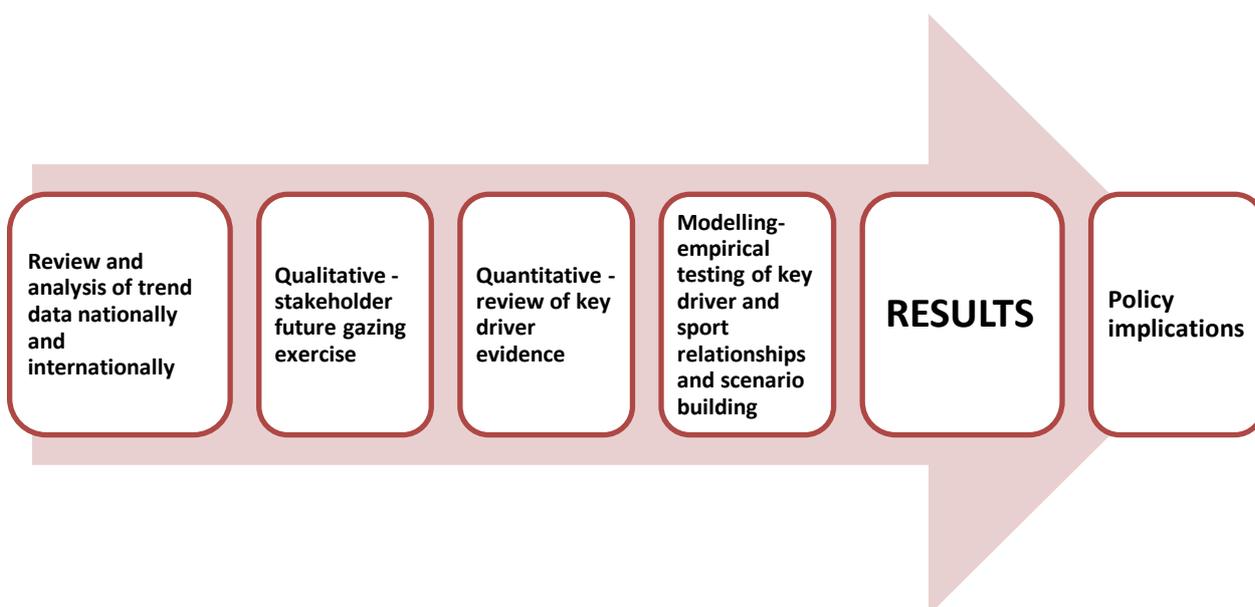
⁴ Sports Industry Research Centre (Dec 2018). A note on modelling sports participation trends. Sheffield Hallam University.

'messy' than it appears when documented. There was a degree of pragmatism in the ordering of the work and it wasn't as sequential as the diagram suggests.

The statistical analysis on sports participation has focused on the two major national datasets available in Scotland - the Scottish Household Survey (SHS)⁵ and the Scottish Health Survey (SHes)⁶. These are discussed more fully in sections 4 and 5. Analysis of adult participation in sport in this report has, consistent with general practice, often differentiated between participation including and excluding recreational walking.

The qualitative research with stakeholders⁷ took place early in 2018 and helped frame the empirical analysis that followed. But further stakeholder engagement and debates took place less formally throughout the year and helped inform the thinking as did ongoing academic review papers commissioned by OSS.⁸ This research has been broad in scope - not just around sport itself but also in the wide angle lens it has taken to examining the place of sport within the socio-cultural and economic trends that frame and influence it (the 'key drivers').

Figure 2.1 The research process



Implied in the labelling of the '13 key drivers' of sports participation is a direct one-way causality. But clearly the relationship between the key drivers and sports participation is more complex than this. Sport is both

⁵See: <https://www2.gov.scot/Topics/Statistics/16002>

⁶ See: <https://www2.gov.scot/Topics/Statistics/Browse/Health/scottish-health-survey>

⁷ This research is not presented as 'empirically representative'. The stakeholders engaged in the 'qualitative exercise' were a selection of influential people from across Scottish sport attending an OSS 'think event' and 'forum' that included individuals from Government, national sport agencies such as sportscotland, national governing bodies, local authorities, third sector organizations and academics.

⁸ Davies, L (2018), *Sports participation in Scotland, Quantifying the benefits*, OSS Academic Review Paper; Shibli, S. (2018) *Sports for the future - decline, growth, opportunity and challenge*, OSS Academic Review Paper; Kay T. (2018), *Sport and social inequality - unloading the dice*, OSS Academic Review Paper; Dennehy, J. (2018) *Gender Diversity in Sport*, OSS Academic Review Paper.

impacted by and at times impacts on the 'key drivers'. A good example of this is socio-economic inequality. There is considerable evidence that sports participation is socially structured with the more affluent having higher rates of participation than those living in deprivation and poverty - '*sport driven by socio-economic inequality*'. However, there are also many examples of where taking part in sport has contributed towards developing life skills and attitudes that help lift people out of poverty and improves their life chances - '*socio-economic (in)equality driven by sport*'.⁹ The numeric balance sheet between in this case being 'driven by' or being 'able to drive' is significantly in favour of the former - but this does not negate the principle.

It is also important to recognise that the key drivers themselves interact with each other in complex ways. Reflecting and modelling this complexity is challenging and it is impossible to replicate the real world. Inevitably in carrying out the modelling we have had to simplify relationships - to artificially isolate them and work with associations rather than to claim evidence of cause and effect. This does not, however, detract from the value of such exploratory exercises properly interpreted with their limitations understood.

The statistical models developed at Sheffield Hallam University explore the link between selected drivers and sports participation based on theoretical association supported by wider research. The drivers selected for modelling were those where we could identify quality time series indicators that represented changes in that driver over the last 10 years or so. The modelling used linear regression techniques with sports participation as the dependent variable. We recognise and understand the limitations of the models and the care that should be taken in interpreting the results. The models provide an indicative examination of trends that show possible associations with sport participation. They do not provide 'forecasts' but 10 year 'projections' based on different scenarios – 'Optimistic'; 'Pessimistic' and 'On Trend'. The results are exploratory and indicative of possible futures based on a range of outcomes and key associations.

⁹ For arguments related to these issues see: Coalter, F., 2007, *A wider Social Role for Sport - Who's keeping the score?* and Coalter, F., 2013 *Game plan and the spirit level: the class ceiling and the limits of sports policy?* *International Journal of Sport Policy and Politics*, 5(1), pp.3-19,

Section 3

Defining and measuring participation in sport

3.1 Defining participation in sport

Defining participation in sport is not without its challenges. There is no objective standard by which activities can be classified as sport or not sport. The default reference for the definition of sport is that provided by the Council of Europe: *“Sport means all forms of physical activity which, through casual or organised participation, aim at expressing or improving physical fitness and mental well-being, forming social relationships or obtaining results in competitions at all levels.”*¹⁰ However, this definition is ambiguous and open to interpretation. All sports involve physical activity but not all kinds of physical activity involve sport. OSS believes it is important to make this distinction but embraces informal fitness related activities as legitimate parts of the sporting spectrum and hence of sports policy. This approach is consistent with that of the Scottish Government's Active Scotland Outcomes Framework.¹¹

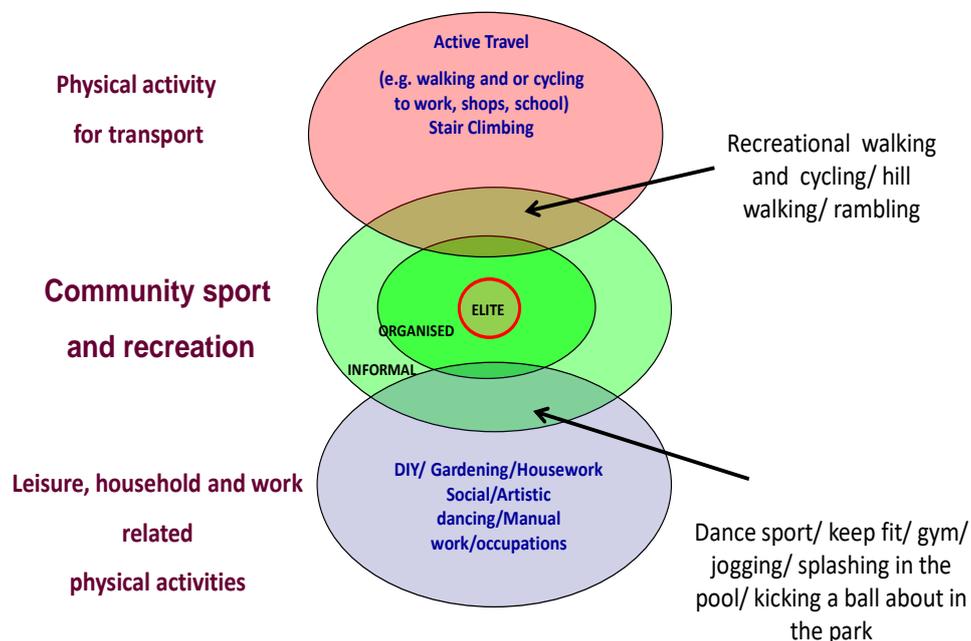
A conceptual framework to define and interpret 'community sport' is shown in Figure 3.1.¹² The primary focus of this report is on 'community sport and recreation' (the area covered by the outer two green circles) which can be differentiated from the performance improvement end of 'elite sport' and from wider physical activities that extend to 'transport', 'leisure', 'household' and 'work related' activities where there is a physical component. Community sport takes place on a spectrum from organised to informal engagement that extends and overlaps with the wider scope of physical activity. It is this conceptual definition of sport that has defined the scope and analysis in this report. This is not to ignore or fail to recognise the benefits to health of a physically active lifestyle and the important contribution activities like walking and cycling for transport and gardening make to the health of the nation. Because of its contextual importance and connection to community sport this report includes a section on 'physical activity' patterns and trends before focusing more specifically on sports participation.

¹⁰ Council of Europe, 1992. *European Sports Charter*. R (92) 13 Rev. Strasbourg: Council of Europe.

¹¹ See: <https://www.gov.scot/About/Performance/scotPerforms/partnerstories/Outcomes-Framework>

¹² This conceptual Framework was developed by the author at Sport England in 2007 and was used by the organisation to define its role in relation to wider physical activity and health.

Figure 3.1: A schematic diagram of sport and physical activity



It is necessary to say something here about how physical activity and sports participation are measured. This report draws extensively on national statistical information in this regard. The methodology for how participation is measured in terms of, for example question design, has been developed and tested over many years. Statisticians themselves will tell you, however, that we are dealing with complex behaviours and that measurement is an imprecise process dependent on self report filtered through people's recall and perception of their own experiences. Notwithstanding, the statistics presented in this report provide a broadly consistent and valid picture of what is happening in sport and physical activity across the Scottish population. The proposals in section 10 of this report for a new national survey are about designing an approach that builds on this knowledge to increase insight and understanding of sporting behaviours in Scotland, its motivations, barriers and characteristics through the life course.

Additionally, it should be acknowledged that there is a wealth of statistical information available that would complement 'national statistics' and some of these are explored in section 8 when the key drivers of sports participation are examined. This research has not, however, involved an extensive review and analysis of this kind of statistical information. These datasets, which include for example national governing body membership records, throughput figures at community sports facilities, use of health and fitness centres and gyms and ad-hoc surveys, are important sources of evidence. But invariably they are partial in terms of both

their geographical coverage or in picking up on certain sectoral aspects of sport behaviours and are inconsistent and difficult, if not impossible to aggregate. These kinds of data which have their useful place as sources of management information and focused insight must be treated with great care in the inference that is drawn when applied to broader population wide trends.

3.2 The current evidence base on participation in sport in Scotland - strengths and weaknesses

On first analysis it may appear that Scotland is well served by its national sports participation statistics (See Annex 1 for more details). There are strengths to the existing statistical sources, which should be recognised:

- The high quality of the two major national surveys (Scottish Household Survey (SHH)¹³ and 'Scottish Health Survey (SHeS)¹⁴. They are both run by the Scottish Government and meet the highest standards required of a national statistic both in their production and their reporting.
- The continuity of the data. Measures on sport and physical activity have been asked consistently every year since 2007/8 and for both surveys' questions were asked at different intervals going back to 1998.
- The large number of demographic questions that support improved understanding of distributional issues related to for example social class, ethnicity, disability, educational qualifications and income, other social measures and health status.
- Recent (2016 and 2017) Scottish Health Survey questionnaires have included questions on the reasons (motivations) for doing sport; the reasons 'why you haven't done any/more sport' (i.e. the barriers and constraints) and the places where sport and physical activity have taken place). This appears to be an under analysed and utilised resource.
- The sample sizes, which allow for disaggregated reporting down to local authority level for the Scottish Household Survey and Health Board level for the Scottish Health Survey.

The research presented in this report would not have been possible without the continuity and quality of sports statistics collected by the Scottish Government over many years. However, there are areas where the data availability for sport from these surveys is not ideal and has constrained the depth of analysis and insight that could be brought to this research and its broader value to policy makers. These include:

- The content of the survey questions in the Scottish Household Survey has been limited in most years to the basic measures of prevalence - i.e. how many people take part in sport, how often, and which sports they participate in. Only the extended module of the Scottish Household Survey carried out in

¹³ See: <https://www.gov.scot/Publications/2018/09/1313/0>

¹⁴ See: <https://www.gov.scot/Topics/Statistics/Browse/Health/TrendPhysicalActivity>

2007/8 provides a range of additional measures that explore for example motivations and barriers to participation, levels of organisation, access to opportunities, tuition and coaching, club membership and facility quality. This survey module has not been repeated.

- Even where the extended SHS module questions and additional SHeS questions were asked it is debatable as to whether there was any overarching theoretical foundation for the question content facilitating greater insight and understanding of sport behaviours and influencing factors (for example developing questions within a theoretical framework provided by 'sporting capital theory' of which more is discussed later). .
- The different definitions of sport and methodologies used in the two surveys (SHS and SHeS) has the potential to produce conflicting and inconsistent results on sports participation which can be confusing and serve to undermine confidence in the statistics. It is also not possible to 'join up' children's statistics with those of young adults to provide continuity of measures across this critical life stage period.
- It is not possible to say anything definitive about both the number of sports clubs and the numbers of sports club members in Scotland and trends over time. High quality statistical evidence is not available from random population surveys to estimate with any degree of confidence the number of sports clubs members The Scottish Household Survey has not included a question on club membership since 2007/8. The statistics that are available are derived from samples of **sportscotland** supported clubs¹⁵ which are not representative of all sports clubs or sports club members in Scotland and are not therefore suitable for estimating national levels of prevalence or trends.
- Although sample sizes are good by national survey standards, they are often insufficient to provide a level of precision required to monitor changes in what for most sports are relatively small prevalence activities within the wider population. Consequently, sub-group analysis for these activities is limited and the data becomes unstable with wide confidence intervals when disaggregated to local authority area level.
- The two primary data sources are cross-sectional in design. However, participation in sport is by its nature a temporal phenomenon subject to considerable fluctuation in terms of dropping in and dropping out and changes over the life course. Yet it is precisely these changes and the factors that influence them that are central to the insight that policy makers need to better understand the

¹⁵ See: Evaluation of **sportscotland** supported activity: clubs and communities Executive summary May 2018, Research Scotland; and **sportscotland** contribution to Active Scotland Outcomes Framework: schools and education and clubs and communities environments, April 2018, Research Scotland

nature of participation behaviours and how to effect change. Such insight can only be delivered through longitudinal research designs.

Addressing these data limitations is picked up in the final section of this report.

Concluding comments

Sports policy and practice needs a combination and synthesis of quantitative and qualitative evidence used intelligently to inform and help shape effective intervention. A sound, high quality national survey addressing the factors identified above provides the essential 'evidence foundation' that supports and contextualises more specific building blocks of research that map the landscape and providers in sport; evaluate the effectiveness of interventions; and explore the relationship between sports participation and wider social, economic and health outcomes and how these can be optimised.

A central requirement for this evidence base is clarity on definitional issues around what is and what is not 'sport'. There is no right or wrong answer to this question and in this section a framework is provided which helps to conceptualise where the boundaries might lie between sport and physical activity and sport and 'active travel'. This definition is not just important to how evidence is collected, and behaviours interpreted - but definitional decisions also shape and frame the scope and reach of sports policy and its relationship to other areas of public policy such as health and social and community cohesion.

As we see later in this report, understanding the trends and drivers of participation in sport is fundamental to identifying priorities for public policy intervention; the forms that intervention should take in terms of programme design; the relationships to be established; the nature of partnerships required; and the benchmarking of performance, nationally and internationally. The importance of high quality, trustworthy statistical evidence on sports participation is central to this analytical insight and cannot be overstated.

Section 4

Trends in participation in physical activity in

Scotland - an overview

The focus of this report is on participation in sport. However, as shown in section 3 sport is contextualised by and is part of a broader spectrum of 'physical activity' that spans household chores, leisure, work and transport. This report would be incomplete if it did not examine broader physical activity trends in the Scottish population as part of a wider behavioural and cultural context that impacts on sport.

At the outset of this report it was stated that there was not going to be a focus on the evidence of the wider benefits to sport on society. However, it would be remiss in this section to not at least make some reference to the link between physical activity (and sport) and one of the biggest health challenges facing Scotland. The health benefits of a physically active lifestyle are well documented and there is abundant evidence that regular activity is related to a reduced incidence of chronic conditions of concern in Scotland, such as cardiovascular disease, obesity, and Type 2 diabetes.

- In 2016, 65% of adults aged 16 and over in Scotland were overweight, including 29% who were obese. Levels of overweight and obesity increased between 1995 and 2008 but have remained relatively stable since then. The mean BMI has increased from 27.1 to 27.7 since 2003.¹⁶
- Since 1998, the proportion of children at risk of overweight (including obesity) has fluctuated between 29% and 33%. In 2016, 29% of children were at risk of overweight or obese.¹⁷
- Among adults aged 16 and over, 19% had some form of cardiovascular disease (CVD) or diabetes, 15% had any CVD, and 5% had diabetes. These numbers have remained relatively stable in recent years.¹⁸
- At the end of 2014, there were 276,430 people diagnosed with diabetes in Scotland recorded on local diabetes registers. Of all cases, 88.3% (244,050) were type 2 diabetes. Prevalence of type 2 diabetes continues to increase steadily.¹⁹
- It has been estimated that the total economic cost of obesity to Scotland ranges from £0.9 billion to £4.6 billion a year.²⁰

¹⁶ See: <https://www.gov.scot/Publications/2017/10/7371/1>

¹⁷ See: <https://www.gov.scot/publications/scottish-health-survey-2016-volume-1-main-report/pages/52/>

¹⁸ See: <https://www.gov.scot/Resource/0052/00525366.pdf>

¹⁹ See: <https://www.gov.scot/Resource/0048/00489587.pdf>

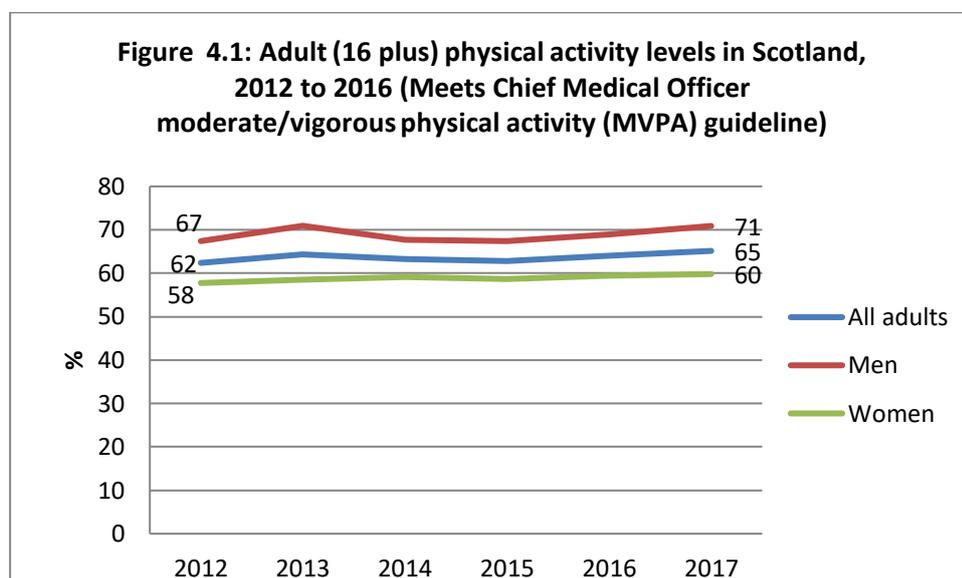
²⁰ See: https://www.scotphn.net/wp-content/uploads/2016/02/2016_01_06-Final-Report-1.pdf

- In comparison with 17 other Organisation for Economic Co-operation and Development (OECD) member states that had comparative data, Scotland ranks 5th highest for overweight (including obesity) and 6th highest for obesity alone.²¹

The following statistics on physical activity are provided from the Health Survey for Scotland (see Annex 1 for more details on the survey background and method). Physical activity includes within its definition a wide range of lifestyle related behaviours of which sport and active recreation are a major contributor. A definition of sport and physical activity is provided in section 3.

4.1 Trends in levels of overall physical activity: adults

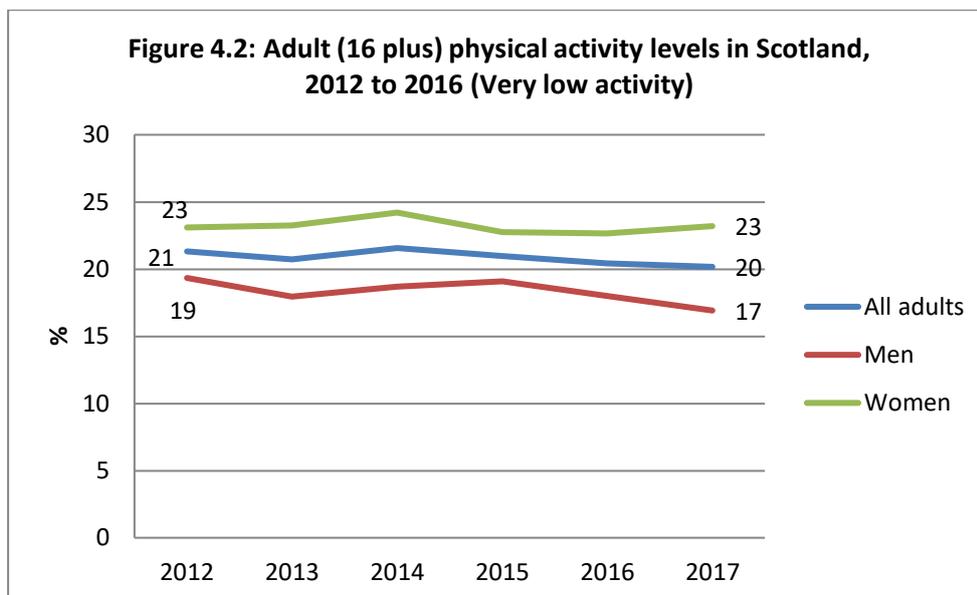
Figures 4.1 and 4.2 show trends in overall adult physical activity levels measured in the Scottish Health Survey. The trends in both those meeting guidelines²² and those classified as the most sedentary (very low activity)²³ have shown little change over a five-year period from 2012 to 2017 with an indication of a slight increase from 62% to 65% in the former. Over the same period the percentage of men (71% in 2017) meeting the guidelines has been significantly higher than women (60%) with no sign of the gap narrowing. At the lowest end of the spectrum nearly a quarter of women, compared with just under a fifth of men, have been classified as having very low activity levels with no indication of any positive progress being made over the period.



²¹ See: OECD figures quoted in http://www.parliament.scot/ResearchBriefingsAndFactsheets/S4/SB_15-01_Obesity_in_Scotland.pdf. See also OECD Obesity Update 2017 which provides figures for the UK and England which will be similar to Scotland (access at: <https://www.oecd.org/els/health-systems/Obesity-Update-2017.pdf>)

²² Meets moderate/vigorous physical activity (MVPA) guidelines: at least 150 minutes of moderately intensive physical activity or 75 minutes vigorous activity per week or an equivalent combination of both.

²³ Very low activity: Less than 30 minutes of moderate activity or less than 15 minutes of vigorous activity or an equivalent combination of these per week



4.2 Trends in levels of overall physical activity: children and young people

Figure 4.3 shows trends for 2008 to 2016 in levels of physical activity of children aged between 2- and 15- years including activity carried out at school. There has been a slow but gradual increase in the proportion of children meeting physical activity guidelines over this period. The percentage of boys meeting the guidelines has shown little change while girls meeting the required activity levels has increased. A longer-term perspective is provided by examining measures going back to 1998 which 'exclude physical activity in school lessons'. These show the percentages in 1998 meeting current guidelines were 65% (72% for boys and 59% for girls) compared with 68% overall (73% for boys and 64% for girls) in 2016. These figures must, however, be treated with caution and may represent a significant over-estimate.²⁴

Figure 4.4 shows the proportion of children aged 2 to 15 years meeting physical activity guidelines in 2017 - including and excluding activity at school. As referenced above - with a new measurement protocol the overall percentage has dropped to 33% including activity in school lessons. If accepted as a more accurate measure this paints a more challenging picture for physical activity levels of children in Scotland than the previous figures might have suggested.

²⁴ Due to a method change in 2017 this percentage is not comparable with previous years. Interestingly the method change (moving from average estimates of activity over a week to specific questions about activity on each day) changed the percentage meeting the same CMO guideline (Should engage in moderate to vigorous activity for at least 60 minutes and up to several hours every day). In 2017 this was 33% (for those aged 5 to 15) while in 2016 it was measured at 76%.

Figure 4.3: Percentage of children (2 to 15 years) in Scotland meeting physical activity guidelines over an average week, (including activity at school), 1998 to 2016

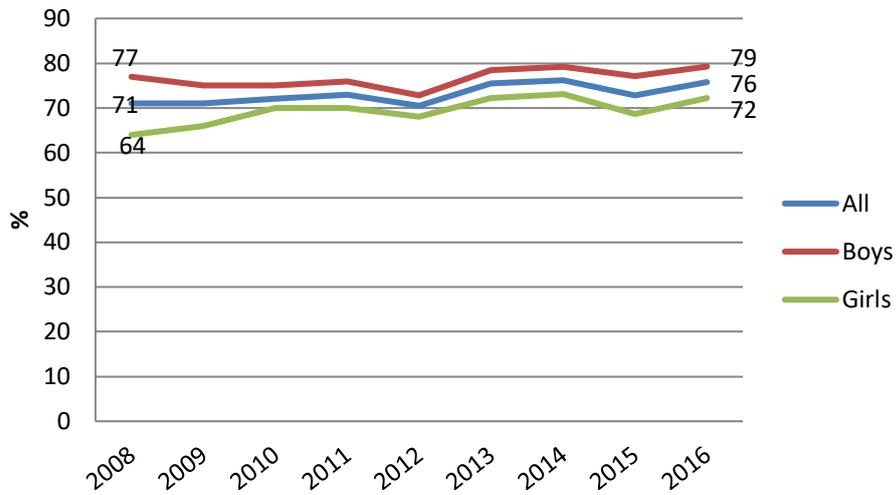


Figure 4.4: Percentage of children (2 to 15 years) in Scotland meeting physical activity guidelines over the course of a week including and excluding activity at school, 2017

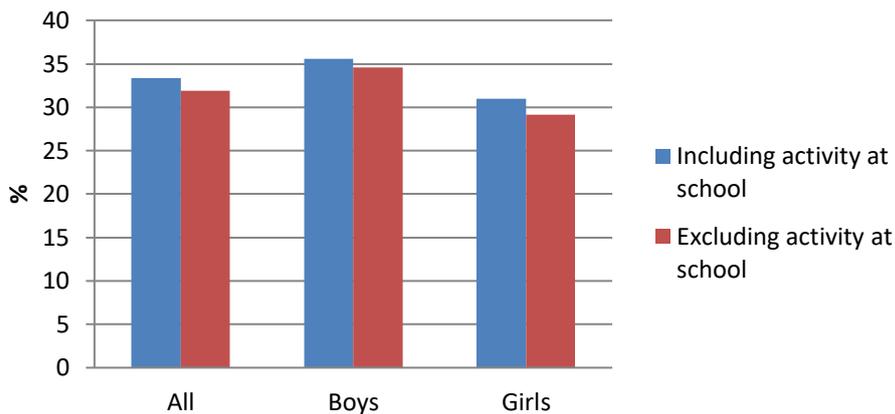


Figure 4.5: Percentage of children (2 to 15 years) in Scotland meeting physical activity guidelines over the course of a week including activity at school, by age, 2017

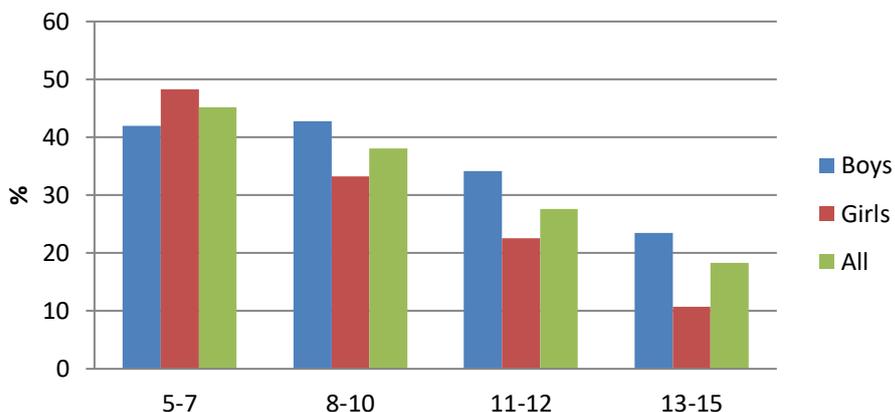


Figure 4.5 shows the percentage of young people aged 2 to 15 years who meet physical activity guidelines in 2017²⁵ by age and sex. This shows how from the age of 8 to 10 years onwards the activity levels of boys and girls diverge with a substantial decrease in the percentage of girls meeting the guidelines. This decline is seen later for boys but culminates in the percentage of 13 to 15-year-old girls meeting physical activity guidelines dropping as low as 11% and to 24% for boys.

Findings

- Trends in both those adults meeting guidelines and those classified as the most sedentary (very low activity) have shown little change over a five-year period from 2012 to 2017 with perhaps an indication of a slight increase from 62% to 65% in the former.
- Over the same period the percentage of men (71% in 2017) meeting the physical guidelines for health has been significantly higher than women (60% in 2017) with no sign of the gap narrowing.
- At the lowest end of the spectrum nearly a quarter of women, compared with just under a fifth of men, have been classified as having very low activity levels (less than 30 minutes moderate activity or 15 minutes vigorous activity in an average week) with no indication of any positive progress being made over the period.
- There has been a slow but gradual increase in the proportion of children (aged 2 to 15 years) meeting physical activity guidelines over the period 2008 to 2016. The percentage of boys meeting the guidelines (79% in 2016) has remained static while girls meeting the required activity levels (72% in 2016) has increased.
- From the age of 8 to 10 years onwards the activity levels of boys and girls diverge with a substantial decrease in the percentage of girls meeting the guidelines. This decline is seen later for boys but culminates in the percentage of 13 to 15-year-old girls meeting physical activity guidelines dropping as low as 11% and to 24% for boys.

Concluding comments

Scotland has broadly seen very little change - up or down - in physical activity levels over the last decade, as far as adults is concerned. Recent changes in the way physical activity levels amongst children has been measured has perhaps clouded the picture but raises rather than reduces the possibility that activity levels are lower rather than higher than had previously been thought in this important age group. For girls the 22 percentage point decrease in those meeting guidelines between the ages of 8 to 10 years and 13 to 15

²⁵ At least 60 minutes of activity on all 7 days in previous week. See also footnote 10 for details about a method change and the consequences.

years is a major challenge with, for many the seeds of a life of sedentary behaviours and associated chronic health problems being sown at this young age.

These trends have occurred despite heightened public policy concern and political consensus over this issue. And many might think that there is little reason to believe that this pattern will not persist over the next 10 years and beyond. The picture of a nation that is too inactive for its own good is stark as are the consequences. Scotland is currently near the top of the world's league table of countries that are overweight and obese. The causes of overweight and obesity cannot be laid solely at the door of inactivity - they are complex and multi-faceted. But physical activity (or inactivity) has a crucial role to play. As we see later in this report, community sport is an important component of the physical activity mix that has the potential to contribute towards the health and wellbeing of the nation.

Sports participation and physical activity levels are inextricably intertwined in a cultural disposition that either values and adopts an active lifestyle or embraces a path of sedentary behaviours where 'energy expenditure avoidance' becomes the norm. The high levels of overall physical inactivity in Scotland are in part a product of increasing pressures on sports participation and declining engagement in sport. It could be argued that the 'answer' is not to 'medicalise' sport but to revitalise it. This involves building the sporting capital of people's competence, confidence and connections in sport that supports its life enhancing qualities and the motivations that drive individuals to want to take part in it - and this is discussed in the final section of this report.

Section 5

Trends in sports participation in Scotland - an overview

This section provides a broad overview of trends in participation in sport by adults and children. It examines trends for adults including and excluding participation in recreational walking (at least 30 minutes). The source for adult participation (16 plus) is the Scottish Household Survey while children's (2 to 15 years) data comes from the Scottish Health Survey. The standard definition of sports participation for adults is '*at least once in the previous 4 weeks*' and for children '*during the course of the last week*'.

Figure 5.1 shows that adult participation in any sport excluding walking has remained constant over the period 2007 to 2017. Any overall increases in activity have been driven by recreational walking which has shown significant increases since 2010.

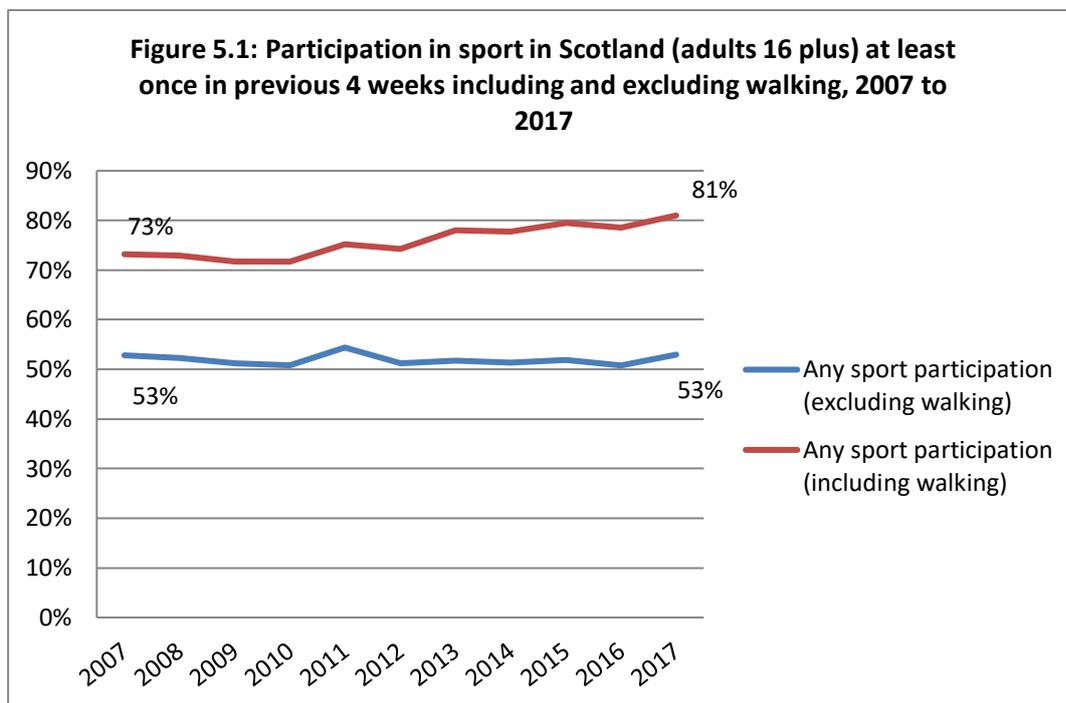


Figure 5.2 shows trends in participation in sport from 2007 to 2016 by age. Again, the broad trend has been for sports participation to remain static over this period with little fluctuation. Perhaps of most concern is the trend relating to the youngest age group of 16 to 24-year-olds. Although they are the highest participant group in most years (interestingly not in 2015) the levels have dropped three percentage points over the 9 year period. These statistics show little cause for optimism for a positive generational shift that will lead to

participation growth over the next 10 to 20 years. If young people's participation rates remain unchanged or fall slightly then the only route to growth is to prevent drop-out with age. However, the drop-out with age is showing no signs of decreasing with a halving of the participation rate between the ages of 16 to 25 years and 66 to 75 years a constant feature throughout the 9-year period. This is explored further in section 6.

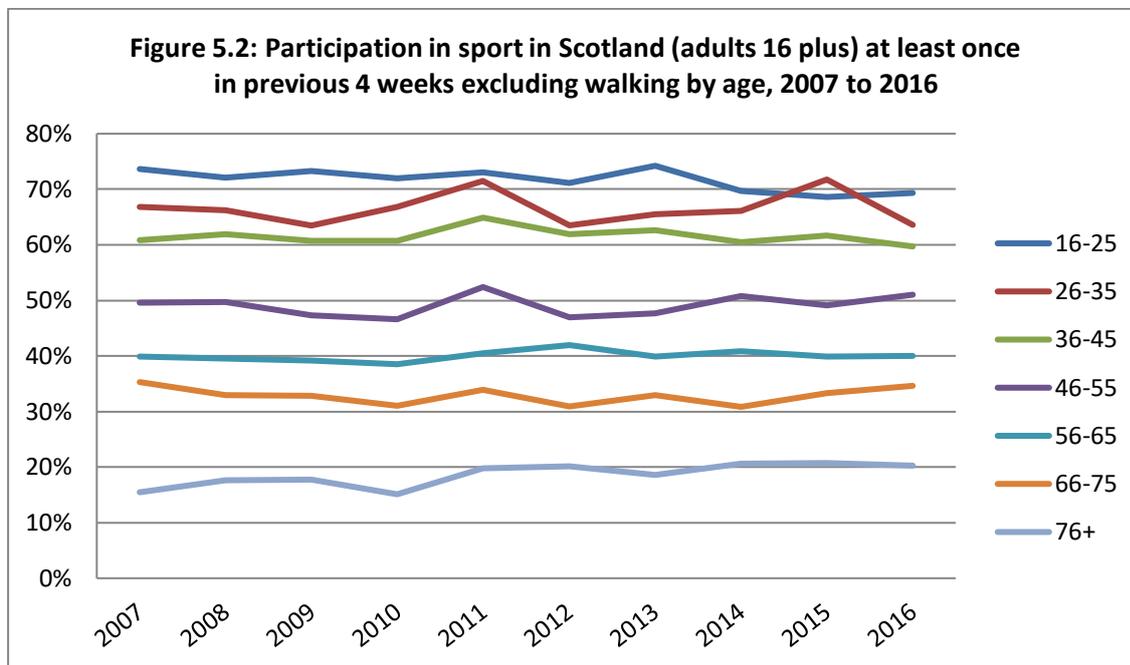
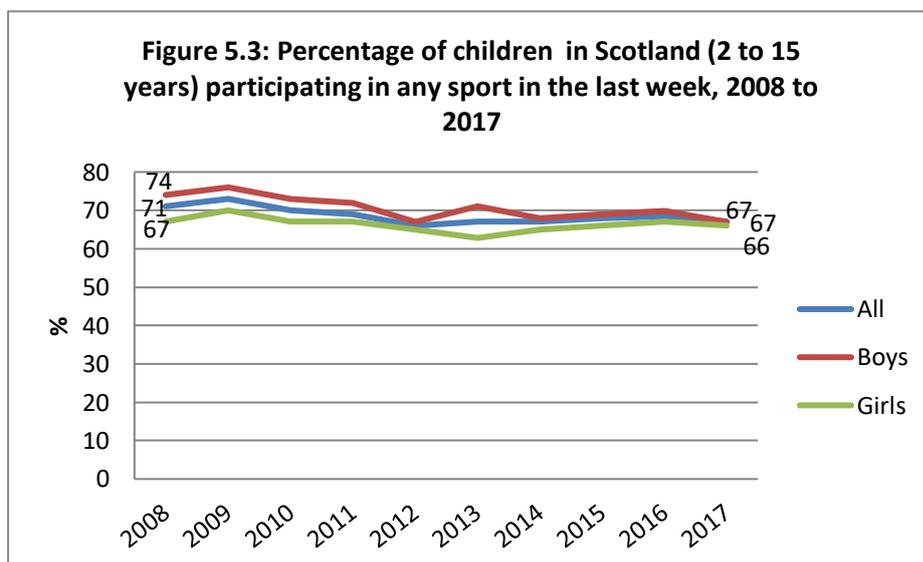


Figure 5.3 shows trends in the percentage of children aged 2 to 15 years participating in any sport in the last week. This has shown a slight fluctuation year-on-year, but the overall trend is one of little change over the 9-year period 2008 to 2017. Girls participation has remained static over the same period (67% in 2008 and 66% in 2017) while boys has decreased since its peak of 76% in 2009 to 67% in 2016.

Looking back a further 10 years, the equivalent figures available for 1998 from the Scottish Health Survey of that year show overall participation rates at 69% with the rate for boys at 72% and girls 65% indicating little change over an extended 18-year period.



Findings

- Adult participation in any sport excluding walking has remained constant over the period 2007 (53%) to 2016 (53%).
- Any overall growth in sports participation has been driven by the inclusion of recreational walking which has reported significant increases since 2010. The percentages taking part in sport including walking has increased from 73% in 2007 to 81% in 2017.
- The drop-out with age remains significant and is showing no signs of decreasing with a halving of the participation rate between the ages of 16 to 25 years and 66 to 75 years (from 69% to 35% in 2016) a constant feature throughout the 9-year period.
- The percentage of children aged 2 to 15 years 'participating in any sport in the last week' has shown a slight fluctuation year-on-year but the overall trend is one of little change over the 9-year period 2008 to 2017. Girls participation has remained static over the same period (67% in 2008 and 66% in 2017) while boys has decreased since its peak of 76% in 2009 to 67% in 2016.
- Looking back a further 10 years, the equivalent figures available for 1998 show overall participation rates at 69% with the rate for boys at 72% and girls 65% indicating little change over an extended 18-year period.

Concluding comments

On the face of it participation trends in sport in Scotland appear generally to be static with any increases seen being driven in the main by growth in recreational walking. But we might question whether static is acceptable in a country that rates amongst the highest in the world for levels of obesity and overweight and where substantial proportions of the population are sedentary. Static is also not what public policy has aspired to over these years having had much greater ambitions for increasing participation, particularly amongst the young. These trends have occurred despite the significant levels of public investment over this period and the anticipated legacy effects of the London 2012 Olympics²⁶ and the Glasgow 2014 Commonwealth Games.

Additionally, there are worrying signs that young people's participation in sport is starting to decline. There is insufficient evidence to suggest it is the start of a downward trend, but the figures are currently heading in the wrong direction. The evidence points to the next generation of Scots being more inactive

²⁶ It has been suggested that the short-term upturn in participation in 2011 may be a consequence of the increased publicity and enthusiasm leading up to the 2012 London Olympics. This is impossible to prove. If it was the case then it was not sustained during and after the Games. There was no equivalent 'upturn' in Scotland around the time of the 2014 Glasgow Commonwealth Games. The later modelling work presented in Chapter 9 shows little relationship between Major Events/ Games and participation in sport.

and less sporty than their parents and grandparents were at the same age with the consequences for deteriorating health and wellbeing.

This broad overview of trends in participation hides many aspects of change. Underneath the apparent surface calm there is considerable turbulence in the patterns of participation and its distribution across the population. The next section explores some of these undercurrents.

Section 6

Participation in sport in Scotland - a deeper dive

The previous two sections painted a picture of relative calm - with participation rates in physical activity and in sport remaining broadly 'flat' over the last 10 to 20 years. This section takes a 'deeper dive' below the apparent surface calm to explore the undercurrents that are characterising and shaping sports participation in early 21st Century Scotland. The picture is a much more turbulent one than the overall statistics might suggest.

6.1 Inequalities - age, gender and social class

This sub-section explores 'inequalities' viewed through the lens of sports participation. The wider drivers of these inequalities are the focus of section 8. As sport is itself a social, institutional and cultural phenomenon it is perhaps not surprising that inequalities pervade it in many ways - and the most fundamental expression of this is in the numbers who participate. This report examines inequality in sport as expressed through age, gender, social class and place. This is not to suggest that other inequalities, for example around disability, ethnicity and culture and sexual orientation are of any less importance. This focus is a pragmatic decision and does not reflect a view that these other inequalities are less deserving of attention. In fact, inequalities should not to be seen in isolation but 'intersect' in ways that reinforce and amplify their impacts.²⁷

6.1.1 Age

Section 5 shows how participation rates decline with age and how these age differences have persisted over the last 10 years with no sign of narrowing. Another perspective on this is provided in Figure 6.1 which shows the percentage of the Scottish population 'not doing any sport including walking' by age which again presents highly differentiated profiles with a clear relationship between increasing age with likelihood of dropping out from sport and active recreation.

As we saw earlier, the picture when walking is included is a positive one. Figure 6.1 shows this is particularly the case amongst the older population with those aged 76 plus years 'not doing any sport including walking' having dropped from 65% in 2017 to 52% in 2016 and those aged 66 to 75 years of age dropped from 40% to 32% over the same period.

²⁷ See: Kay, T., OSS Academic Review

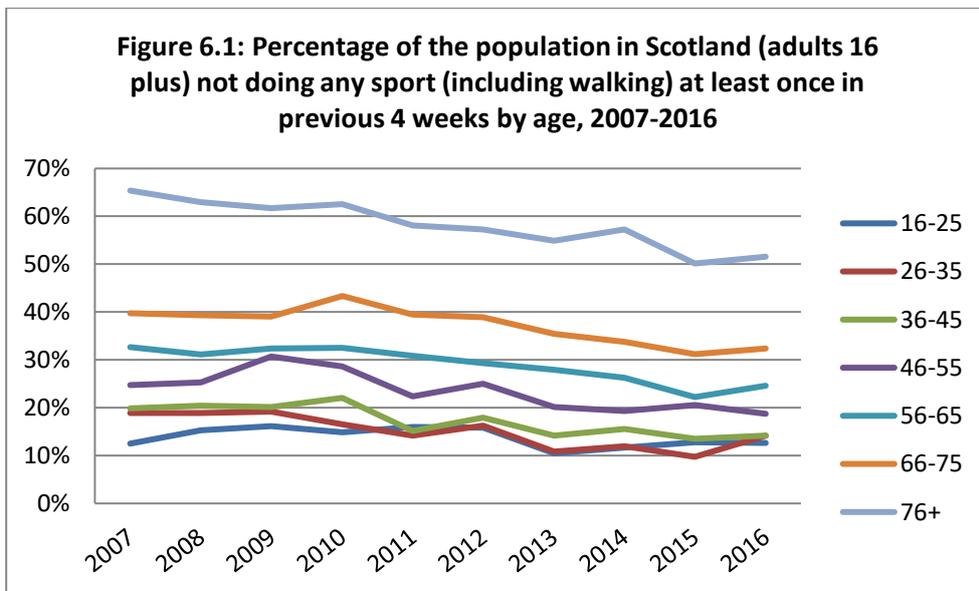
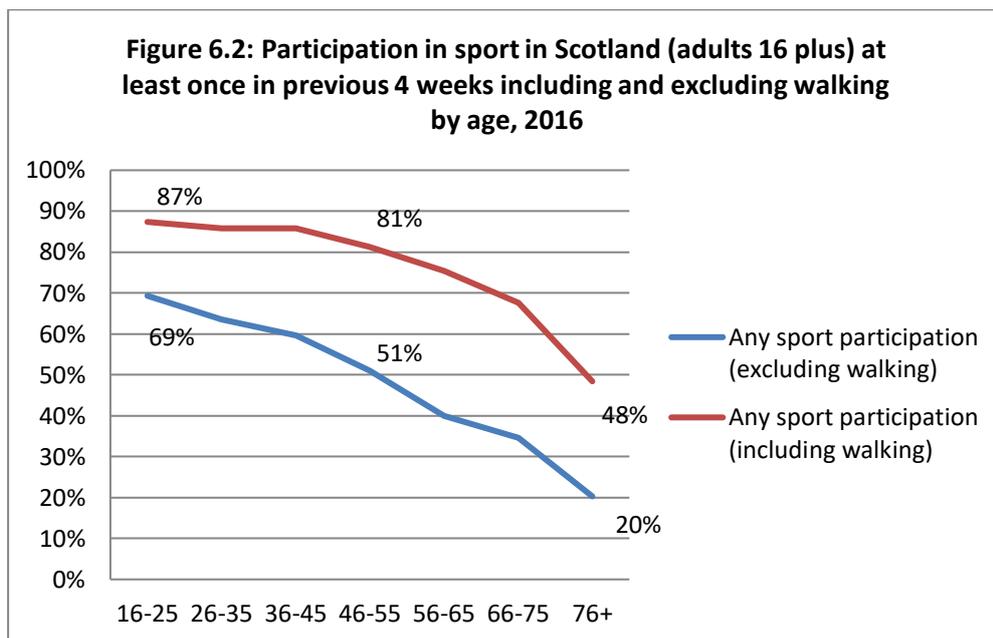
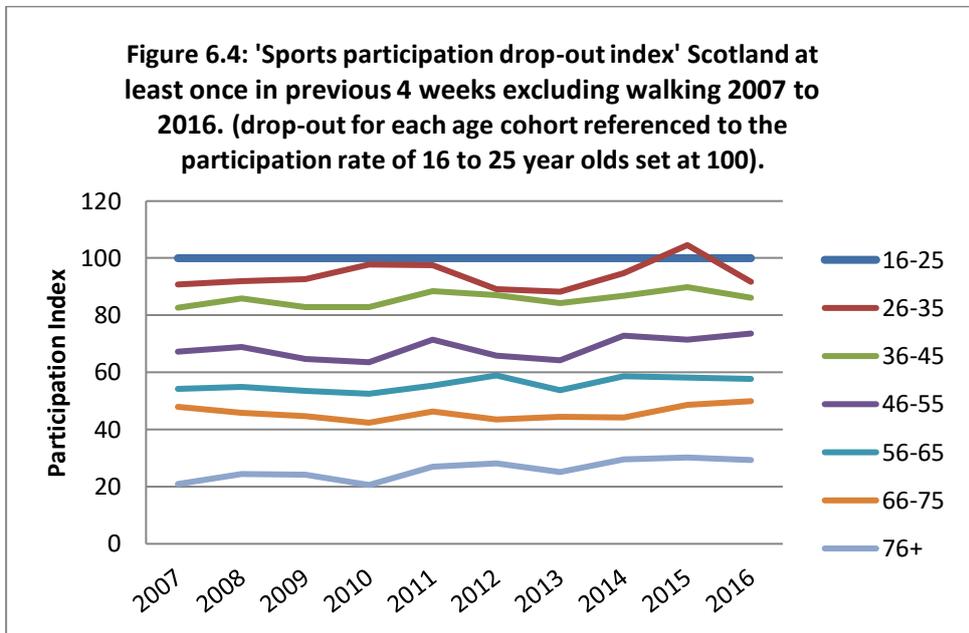
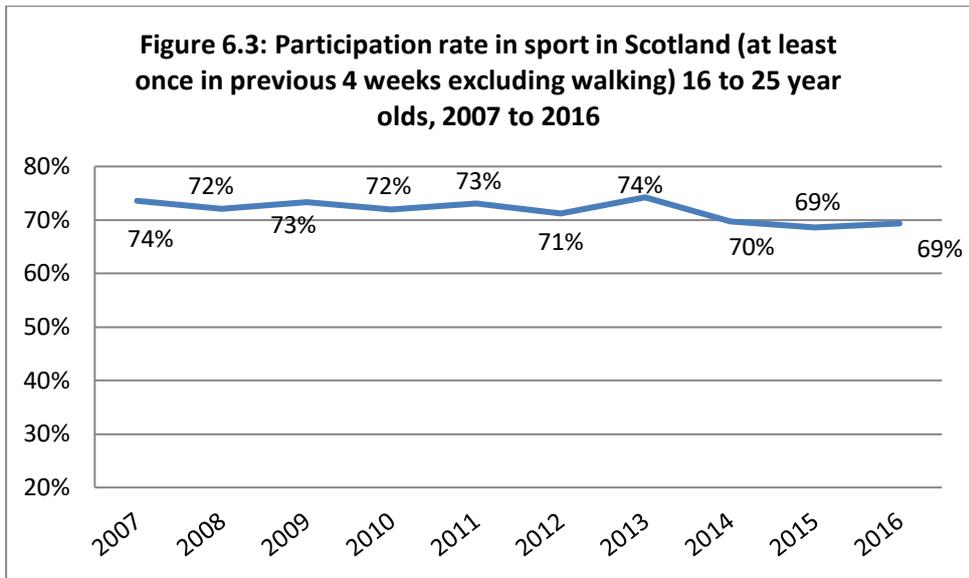


Figure 6.2 shows the profile of participation including and excluding recreational walking for 2017. The drop-out with age is marked in both cases but as would be expected is less prominent when recreational walking is included. The gap between the two lines indicates the important contribution recreational walking makes to overall activity levels.



Examining drop-out with age and how this has changed over time provides insight on societal shifts in participation. In an ideal world participation rates would be very high in the youngest age group and be maintained or have low attrition (drop-out) as people age. As demonstrated earlier, the reality in Scotland is far from this ideal. But how far and are there any signs of a positive move in this direction? Figures 6.3 and 6.4 when viewed in combination help to address this question.

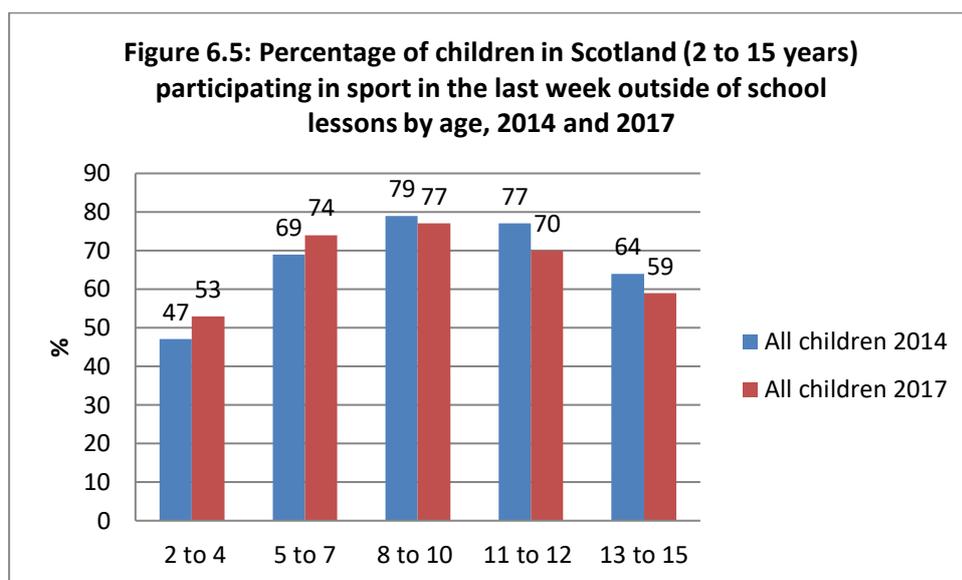


The participation rate of 16 to 25-year-olds is important as it sets the 'adult benchmark' from which drop-out begins. There is considerable research to show that participation in earlier years tracks into later life with someone who drops out in their late teens to early twenties less likely to be participating in their middle and older age than someone who regularly participated in these early years.²⁸ Figure 6.3 shows that over the 10 year period (2007 to 2016) rates of participation in this 'benchmark 16 to 25 year old group' in Scotland declined from 74% to 69% with a 5 percentage point decline since 2013. Figure 6.4 shows the drop-out over time for each age group as an index (*Index of sports participation drop-out*) referenced against the 16 to 25-year-old participation rate (which is set at 100). This chart shows that little if any in-roads have been made into drop-out in sports participation with age over the 10-year period 2007 to 2016. Of note is the large drop-out that occurs by the age of 36 to 45 years and again as people move into their late 40's to early 50s.

²⁸ See for example: Tammelin et. al., 2003; Roberts et. al., 1991; and Birchwood et. al., 2008

Although it is too early to say that it is a trend there are positive signs of a narrowing of the gap in the older age groups with in recent years an upward movement of those aged 76 plus taking part in sport.

The antecedents for adult drop-out are to be found in the behaviours and experiences of children and young people. Unfortunately, the differences in the way participation is measured for young people and adults make them not directly comparable but inferences can be drawn. Figure 6.5 shows the changes between 2014 and 2017²⁹ in the proportion of children aged 2 to 15 years participating in sport at least once a week outside of school lessons. Participation rates in sport have decreased between 2014 and 2017 for children aged 11 to 12 years from 77% to 70% and for 13 to 15 years from 64% to 59% in 2017.



It is also interesting to explore the relationship between age and participation for different sports (see Figure 6.6).^{30,31} Recreational walking - different in kind to many of the other activities - has a different relationship with age with increases in participation into the 20's, 30's and 40's before a decline into older age. Even amongst the oldest age group of 75 plus recreational walking maintains a participation rate of 43% outstripping the highest rate for any other activity for any age. The relationship between age and participation in walking is unusual - the sport that comes closest to matching it, albeit at much lower levels of prevalence, is cycling. Swimming has a similar profile but in this case the drop-out in participation occurs earlier as people move into their mid 40s and 50's. As might be expected the more vigorous and physically demanding sports such as keep fit/aerobics, multigym/ weight training and running and jogging show steady and significant declines with age. Football, the only team sport to register in the top 10, stands out as having

²⁹ Statistical results on these indicators were not presented in the official publications before 2014

³⁰ The analysis on sports participation and age is part of a wider review carried out by Professor Simon Shibli on behalf of OSS. See: Shibli S, *Sports for the future - decline, growth, opportunity and challenge*, OSS Academic Review paper 2018.

³¹ Note: the number of sports that can be reported is limited by sample sizes and the way that the question is asked, and responses recorded. The list of sports included here are those provided in official reporting by the Scottish Government.

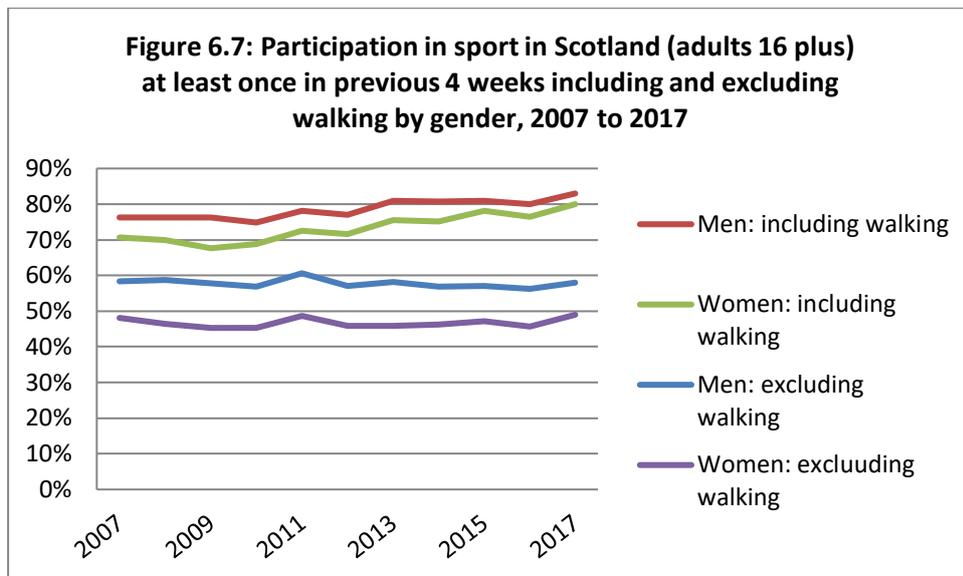
the highest proportionate drop-out between the ages of 16-24 and 25-34 years after which it shows significant declines until it fails to register amongst those aged 75 plus years. Golf, bowls and dancing are examples of sports that have a more positive relationship with age. In the case of bowls participation peaks amongst those aged 60-74 years and 75 plus while golf participation peaks at 60-74 years.

Figure 6.6: Participation rates in sports in Scotland by age, 2017 (for each sport/activity red is at lowest end of the range, yellow in the middle and green at the upper end)

Adults	All	16-24	25-34	35-44	45-59	60-74	75 plus
Walking (at least 30 minutes)	70	73	76	77	73	66	43
Swimming	18	20	25	28	17	12	3
Keep Fit /Aerobics	15	20	20	18	14	10	5
Multigym/Weight Training	15	30	23	18	12	5	1
Running/jogging	14	28	25	22	11	3	0
Cycling (at least 30 minutes)	12	13	16	18	15	8	1
Dancing	7	10	9	6	6	5	3
Football	7	21	14	9	4	1	-
Golf	5	5	5	4	6	7	5
Snooker/Billiards /Pool	6	14	8	6	4	2	1
Bowls	2	2	2	1	2	4	4
Other	8	13	9	9	8	8	3
None of these	19	8	9	12	18	26	49
Base	9,810	650	1,290	1,400	2,410	2,590	1,480

6.1.2 Gender

Sports participation rates in Scotland are significantly higher for men than they are for women. Figure 6.7 shows that the gender difference is more marked when walking is excluded and that the 'gender gap' in sports participation (excluding walking) has persisted over the last 10 years.



The 'gender gap' in sports participation starts very young suggesting an early socialisation process that informs and shapes gender stereotypes and behaviours. Figure 6.8 shows the level of participation in sport as young boys and girls move through their school-age years. More girls than boys participate at the age of 8 to 10 years, but girls' participation drops markedly as they move into their teenage years. The outcome is that by the age of 13 to 15 years more girls do not participate in sport than do.

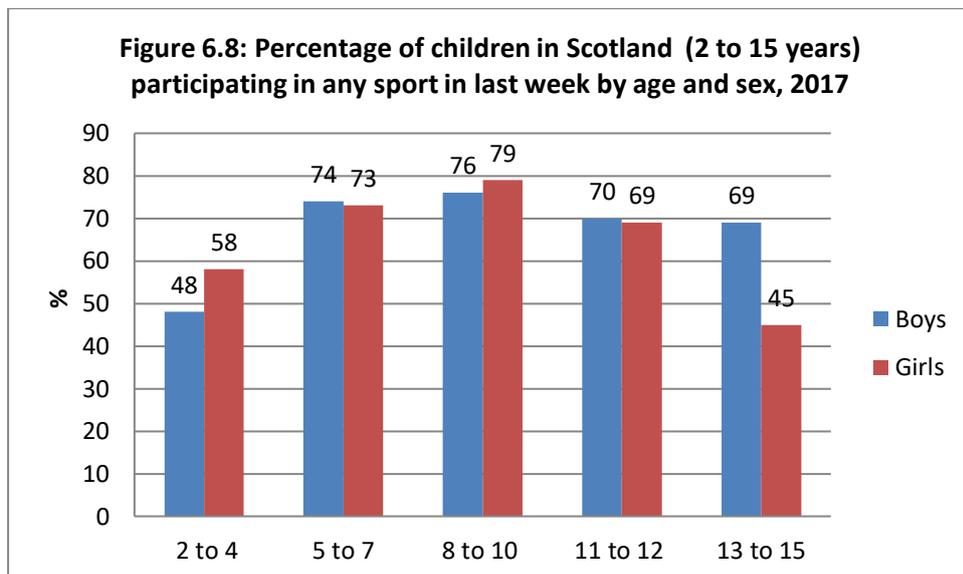
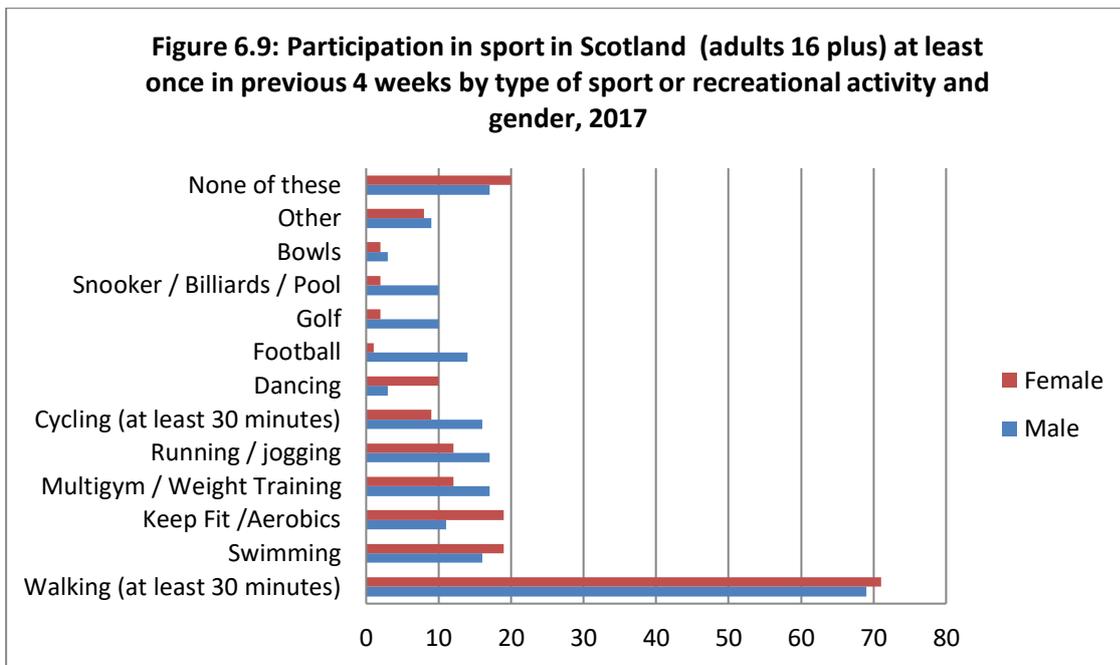
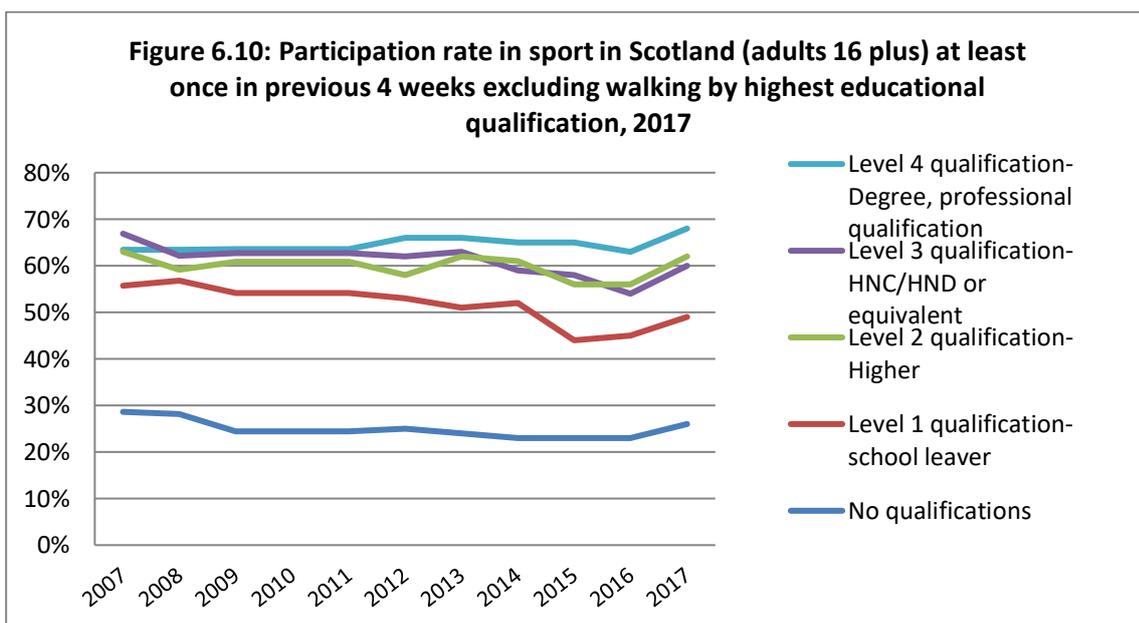


Figure 6.9 shows how participation rates in different sports vary by gender. More women than men participate in recreational walking, dance, keep fit/ aerobics and swimming. For all the other sports listed men significantly outnumber women. This is particularly noticeable for more traditional organised sports like golf, football and bowls.



6.1.3 Social class

In addition to age and gender sports participation is related to social class. Social class is difficult to measure but there are various accepted indicators that are used as proxies. One such measure is 'highest educational qualification'. Figure 6.10 shows the large impact that this proxy measure of social class has on participation in sport and how these differences have persisted over time. Those who had a degree qualification in 2017 had a participation rate in sport of 68% compared with a rate of 49% for those who left school with some qualification but below that of 'Higher' and a rate of 26% for those who left school with no qualification. Some of these differences may of course be a consequence of the nature of the educational process itself which can provide a 'sports participation premium' in its own right.



Another way of exploring social class is to profile people by where they live in terms of the levels of deprivation. The Scottish Index of Multiple Deprivation (SIMD) combines a basket of social and economic indicators.³² Figure 6.11 shows that people living in the most deprived areas of Scotland are less likely to participate in sport compared with those living in the least deprived areas. Of the sports listed only football, snooker/billiards and pool and to some extent bowls have any reach into people living in the most deprived communities. Of note is the difference in participation in 'fitness related activities' between the most and least affluent areas with a halving of the participation rates in keep fit/aerobics, multigym/weights and running/jogging. The percentages who reported they do 'none of these sports' also tell a striking story with 3 in 10 people living in the least affluent areas in this category compared with 1 in 10 in the most affluent.

Figure 6.11: Participation in sport in Scotland by area deprivation, 2017 (for each sport/activity red is at lowest end of the range, yellow in the middle and green at the upper end)

Adults	All	Least deprived 20%	4th	3rd	2nd	Most deprived 20%
Walking (at least 30 minutes)	70	79	75	69	65	60
Swimming	18	22	19	18	15	16
Keep Fit /Aerobics	15	21	17	14	12	9
Multigym/Weight Training	15	20	17	14	13	9
Running/jogging	14	21	17	14	10	9
Cycling (at least 30 minutes)	12	19	16	13	8	7
Dancing	7	8	6	7	6	5
Football	7	7	7	8	8	7
Golf	5	9	6	5	4	3
Snooker / Billiards / Pool	6	5	5	6	6	6
Bowls	2	2	2	2	4	2
Other	8	11	10	8	6	6
None of these	19	10	14	19	23	29
Any sporting participation (inc. walking)	81	90	86	81	77	71
Any sporting participation (excl. walking)	53	65	59	53	48	42
Base (minimum)	9810	1810	2080	2140	1960	1820

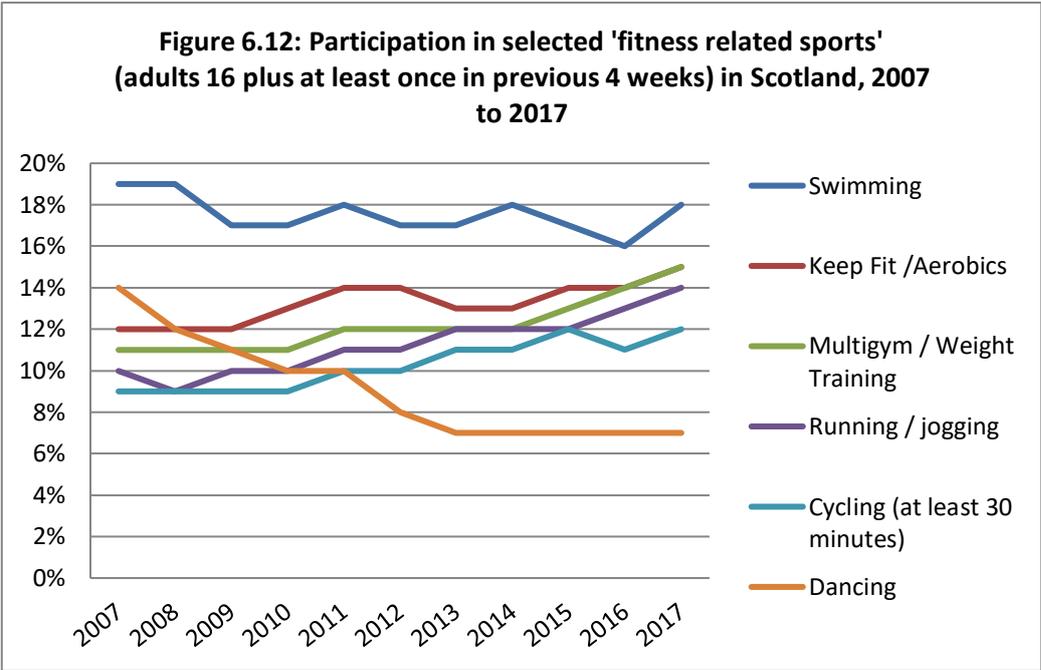
6.2 Sports - formal, informal, increasing and decreasing

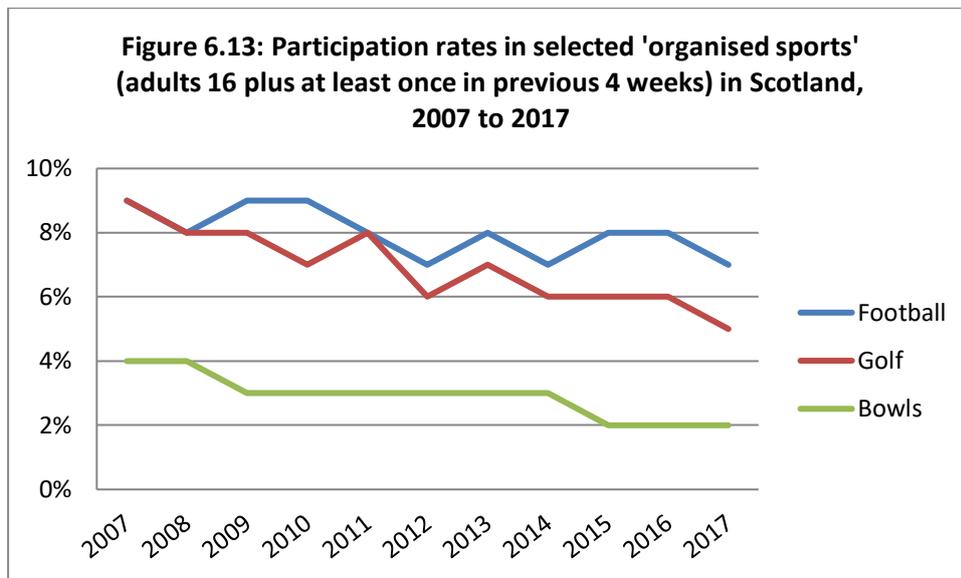
This section explores undercurrents that are starting to make significant shifts in the landscape of sport in Scotland. The analysis is limited by the data available and what is presented here is only indicative of trends

³² <https://www2.gov.scot/Topics/Statistics/SIMD>

that are taking place and that can be identified or inferred from currently available national data. An even deeper dive into, for example, the changes in club membership and in volunteering would, if good data was available, provide greater insight. But what is presented here is enough to suggest that there are significant changes in the types of sports people engage in and the frequency that they play them.

Figures 6.12 and 6.13 show trends in participation in selected 'fitness related sports' and in more traditional 'organised sports' with a larger club base. In four of the six 'fitness sports' (keep fit/aerobics; multigym/weight training; cycling and running/jogging) there has been an upward trend in participation (swimming and dancing are the exceptions). Whilst in the three more traditional sports (football, golf and bowls) the trend is in a downward direction. These changes are significant not just because of the divergent direction of the trends but because the fitness related sports are already starting from a much larger participant base. Analysis presented in section 5 showed that overall participation rates are static over the same period supporting the conclusion that the growth in participation in fitness related sports is being offset by an aggregate decline in other sports.





Figures 6.14 and 6.15 explore this shifting pattern of participation further by examining the trends in groups of sports.³³ The results in Figure 6.14 provide another perspective on the shift away from more traditional sports towards 'fitness related activities' with a small but static participation in outdoor sports.³⁴ By 2017 67% (up from 56% in 2007) of the adult population participated in 'fitness related activities' compared with 17% participating in 'Individual sports' (down from 25% in 2007). Of interest is the changing pattern of participation amongst the highest participant group of 16 to 25-year-olds.

³³ Fitness related activities include keep fit; aerobics; multigym; weight training; yoga; Pilates; tai-chi. They exclude swimming, running and dance. Individual sports include golf; dancing; bowls; racket ball sports; boxing; martial arts; Other-not specified but exclude the big categories of swimming, running and cycling. Outdoor sports include: horse riding; shooting; archery; water sports; winter sports; skating; skiing; climbing; angling. Due to limitations in the way that data was collected it is not possible to carry out an analysis of 'Team Sports'.

³⁴ Note: the rates for participation in 'Individual sports' could not be analysed for 2009 to 2011 and statistics for these years are imputed.

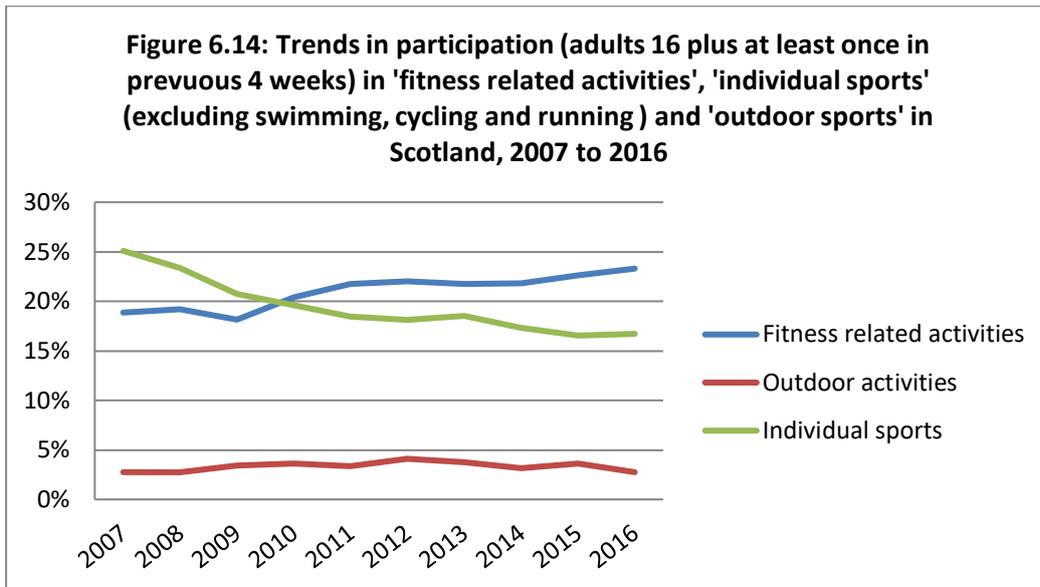
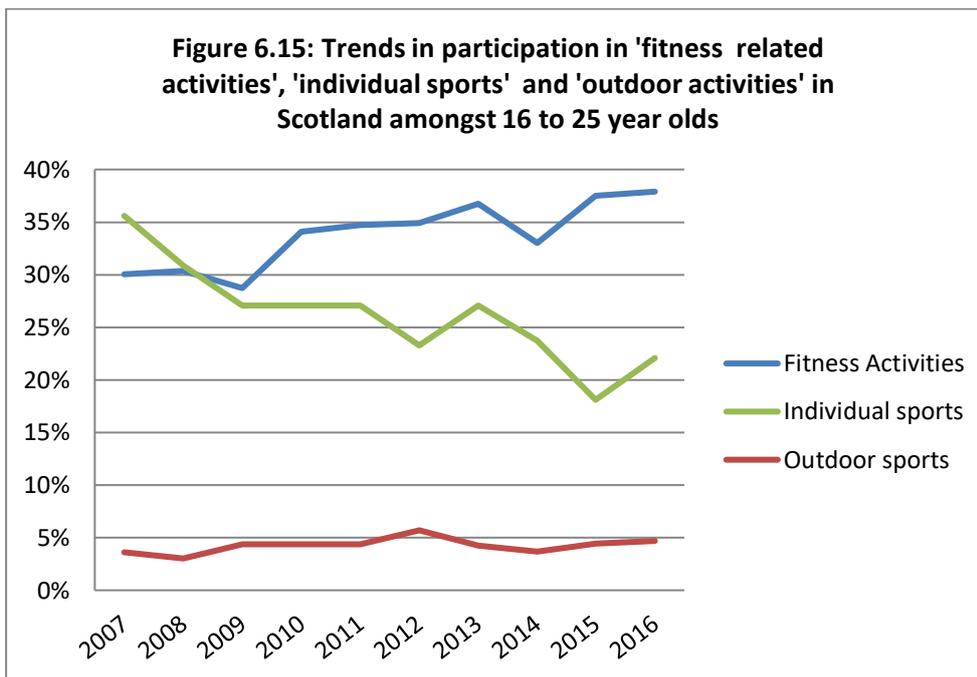


Figure 6.15 shows a significant change in the sporting landscape over a 10 year period with 'fitness related activities' overtaking 'individual sports' as the 'sport of choice' for 16 to 25-year-olds (the cross over point occurring in 2008) with in 2016 participation rates in the former (38%) almost double the latter (22%) for this age group.



6.3 Frequencies - growth of an 'active class'

Changes are not only taking place in the sports that people play, but also in the frequency of play. Figure 6.16 shows (as seen earlier) how the percentage of adults taking part overall (at least once in the previous 4 weeks) has remained flat over the last 10 years but how this hides other significant changes. The percentages participating more frequently - once a week and three times a week - have shown a steady upward trend

which is more marked in the highest frequency group with an increase from 24% of the adult population in 2007 to 30% in 2016.

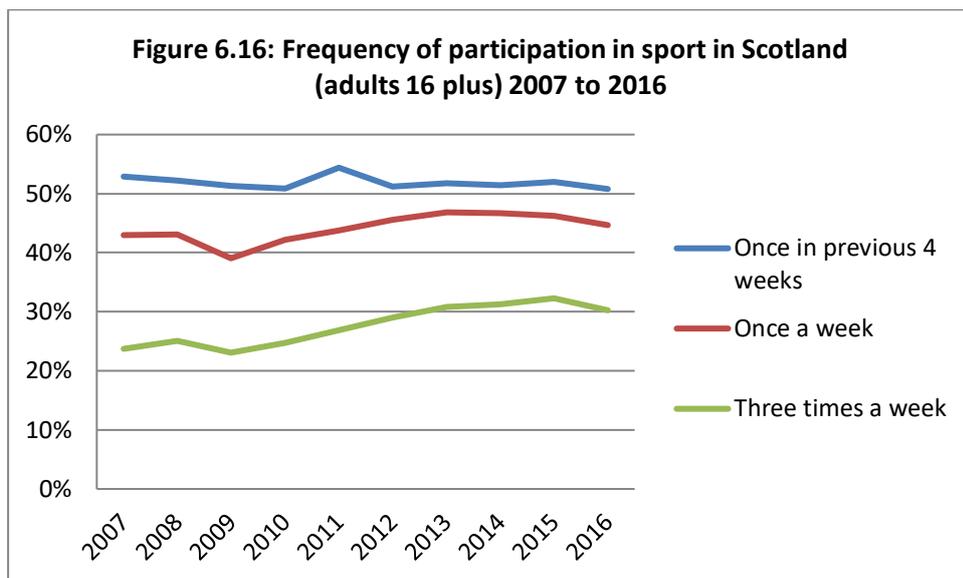
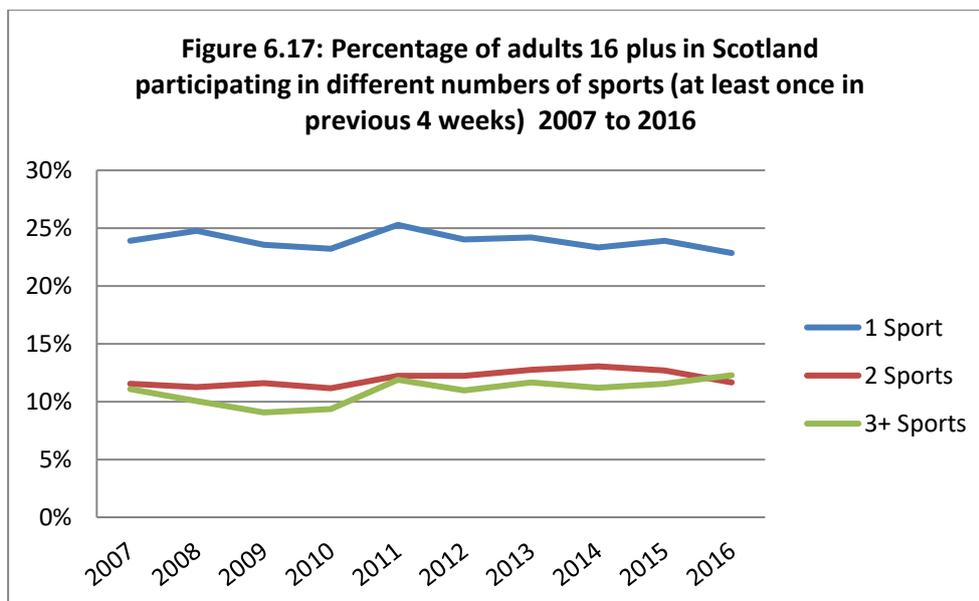


Figure 6.17 below throws further light on the shifting currents of sports participation. Accompanying the growth in a more frequent group of participants is an upward trend in the numbers of people who take part in multiple sports in a given 4-week period. The overall picture presented by Figures 6.16 and 6.17 is one of an increasing significant minority of adults who participate very often in sport or participate in multiple sports whilst at the same time there is a 'flatlining' of overall participation rates in sport across the adult population.



6.4 Geography and sports participation - variations and change

This sub-section examines the extent of variation in sports participation between different local authority areas. Sample sizes are less stable at this level of measurement and so an average participation rate over a three-year period has been taken to smooth out some of the more extreme consequences of small samples. Figure 6.18 shows that comparing the average rate of participation over the period 2015-17 there is considerable variation across different local authorities in Scotland. The range in participation rates from 64% in Edinburgh to 39% in Na h-Eileanan Siar is very large and cannot be explained solely by sample size differences (280 per year in the latter compared with 750 in the former). However, they are culturally and geographically very different places. A better comparison that shows the extent of the variation is to examine the average of sports participation rates (2015-17) for the top 'performing' quintile of local authorities (58%) with that of the bottom 'performing' quintile (42%). This difference of 16% is large and significant.

Statistical analysis we carried out examining the relationship between levels of deprivation in local authorities and participation rates showed only a weak negative relationship that was not statistically significant.³⁵ Further exploration and research is required to seek to understand why this variation is occurring and the extent to which it can be explained by differences in local policies or levels of investment or is a product of culture, physical geography or social norms.

Figure 6.19 extends the analysis to examine the changes that have taken place in participation rates across local authorities in Scotland. Again, to smooth out statistical noise participation rates have been aggregated to a 3 year average for 2007/8-11³⁶ and 2015-17. Only 9 local authorities have seen an increase in participation while 23 have had a decrease. The large population centres of Edinburgh, Glasgow and Dundee have all seen increases which has kept the decline in the overall Scottish participation rate to a relatively small one. The causes of these geographical variations are complex, and it is for each local authority to assess in detail where it sits in this ranking and why.

³⁵ Research carried out by Sheffield Hallam University as part of this research. Deprivation variable was measured by the 'Local share of SIMD 16 rank' which was related to participation in sport at least once a week excluding walking. The weak relationship is a consequence of affluence and poverty often being found in very close juxtaposition within local authority areas.

³⁶ Data is missing for 2011 and so figures for this year were imputed based on the average for the previous 2 years

Figure 6.18: Local authority adult (16 plus) participation rates in sport (at least once in previous 4 weeks excluding walking). Average 2015-17

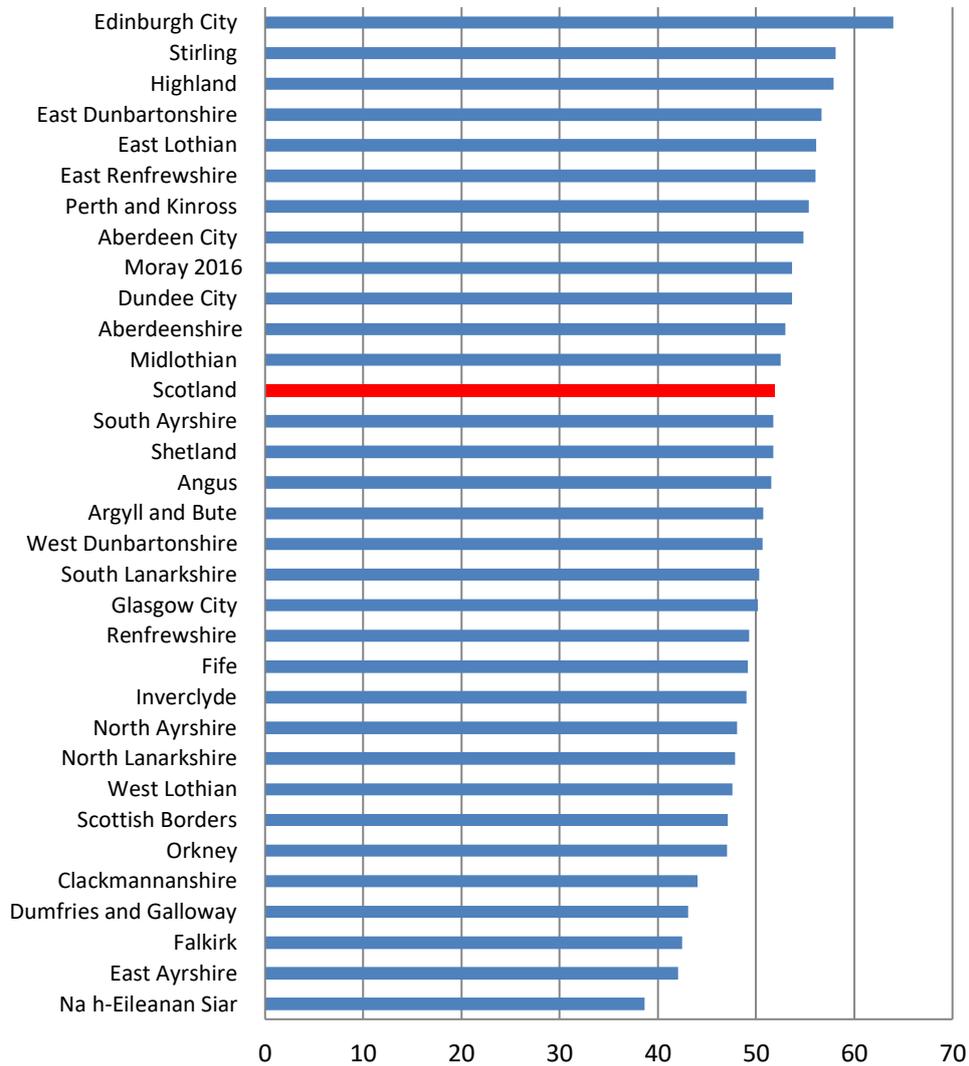
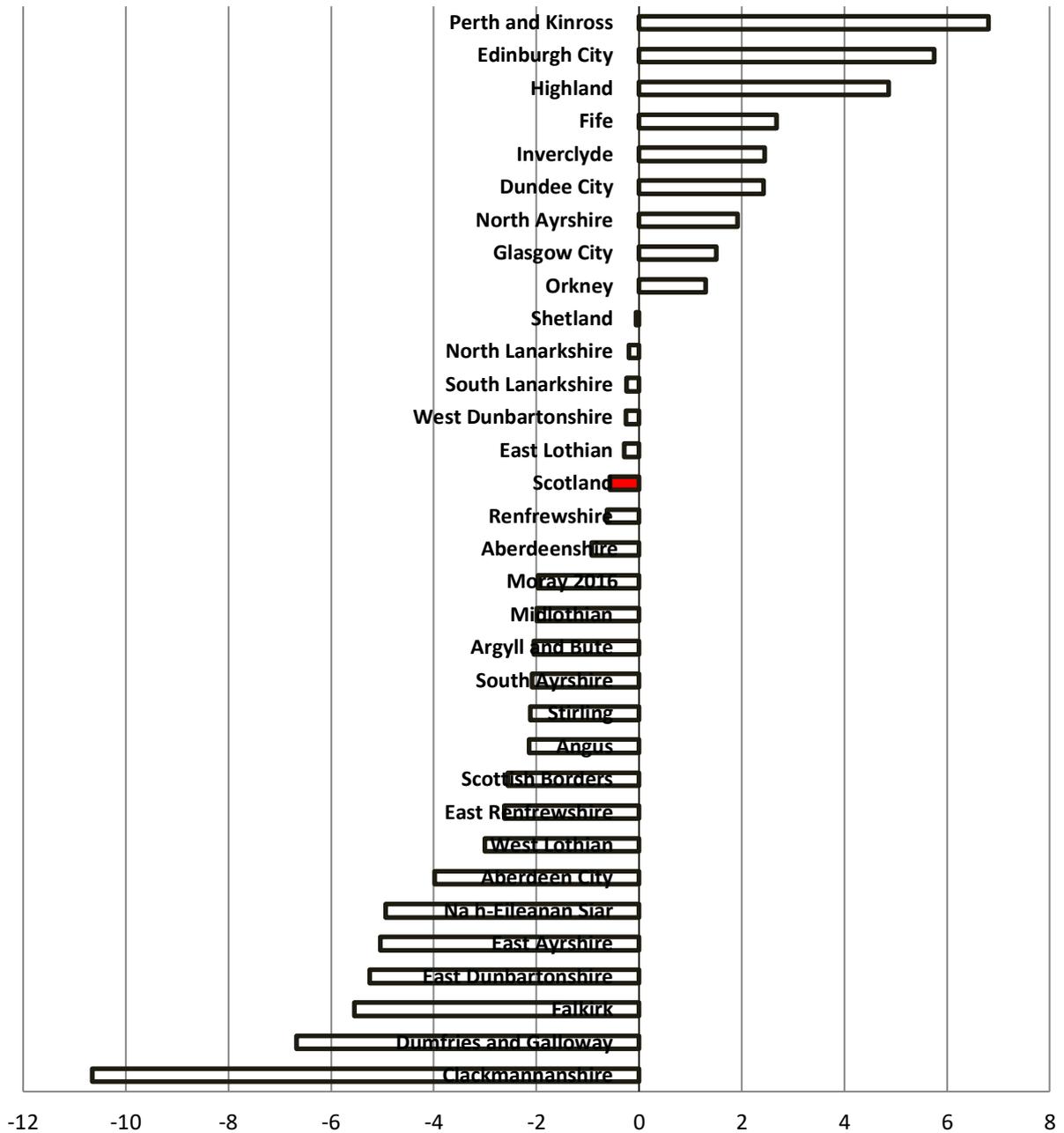


Figure 6.19: Local authority changes in participation in sport (3 year average 2007/8 to 2011) compared with 3 year average (2015 to 17) (adult at least once in previous 4 weeks excluding walking)



Findings

Inequalities - age, gender and social class

Age

- There is a clear relationship between increasing age and likelihood of dropping out from sport. Between the ages of 16-25 years and 46-55 years participation rates excluding walking drop from 69% to 51%.
- Over the last 10 years (2007 to 2016) rates of participation in the 'benchmark 16 to 25-year-old group' in Scotland has declined from 74% (2007) to 69% (2016) with a 5 percentage point decline since 2013.
- An '*Index of sports participation drop-out*' (drop-out for each age cohort referenced to the participation rate of 16 to 25-year-olds) shows that little if any in-roads have been made to drop-out with age over the 10-year period 2007 to 2016.
- Participation rates in sport (at least once in the previous week outside of school lessons) have decreased between 2014 and 2017 for children aged 11 to 12 years from 77% to 70% and for those aged 13 to 15 years from 64% in 2014 to 59% in 2017.
- Football, the only team sport to register in the top 10, stands out as having the highest proportionate drop-out between the ages of 16 to 24 years and 25 to 34 years.
- Golf, bowls and dancing are examples of sports that have a more positive relationship with age. In the case of bowls participation peaks amongst those aged 60-74 years and 75 plus while golf participation peaks at 60-74 years.

Gender

- Sports participation rates in Scotland are significantly higher for men than they are for women. Gender difference is more marked when walking is excluded and the 'gender gap' in sports participation (excluding walking) has persisted over the last 10 years (58% men to 49% women in 2017).
- The 'gender gap' in sports participation starts very young. More girls (79% in 2017) than boys (76%) participate at the age of 8-10 years but girls' participation drops markedly as they move into their teenage years. The outcome is that by the age of 13-15 years more girls do not participate in sport (55%) than do (45%).
- More women than men participate in recreational walking, dance, keep fit/aerobics and swimming, but for all the other sports listed men significantly outnumber women. This is particularly noticeable for more traditional organised sports like golf, football and bowls.

Social class

- Those who had a degree qualification in 2017 had a participation rate in sport of 68% compared with a rate of 49% for those who left school with some qualification but below that of 'Higher' and a rate of 26% for those who left school with no qualification.
- People living in the most deprived areas of Scotland are much less likely to participate in sport (42% excluding walking in 2017) compared with those living in the least deprived areas (65%). Of the sports listed only football, snooker/billiards and pool, and to some extent bowls, have any reach into people living in the most deprived communities.
- Of particular note is the drop in fitness related activities between the most and least affluent areas with a halving of the participation rates in keep fit/ aerobics, multigym/ weights and running / jogging.
- The percentages who reported they do 'none of these sports' also tell a striking story with 3 in 10 people living in the least affluent areas in this category compared with 1 in 10 in the most affluent.

Sports - formal, informal, increasing and decreasing

- In four of the six 'fitness sports' (keep fit/ aerobics; multigym/ weight training; cycling and running/ jogging) there has been an upward trend in participation (swimming and dancing are the exceptions). In the three more traditional sports (football, golf and bowls) the trend is in a downward direction.
- Given that overall participation rates are static over the same period as that there has been a growth in participation in 'fitness related sports' supports the conclusion that growth in the latter is being offset by an aggregate decline in other sports.
- Significant change has taken place in the sporting landscape over a 10-year period (2007 to 2016) with 'fitness related activities' (such as keep fit; aerobics; multigym; weight training; yoga; Pilates; and tai-chi) overtaking 'individual sports' (such as golf, bowls, tennis, boxing, martial arts) as the sport of choice for 16 to 25-year-olds (38% and 22% respectively).

Frequencies - growth of an 'active class'

- Changes are not only taking place in the sports that people play, but also in the frequency of play. Whilst the percentage of adults taking part overall (at least once in the previous 4 weeks) has remained flat over the last 10 years the percentages participating more frequently - once a week and three times a week - have shown a steady upward trend which is more marked in the highest frequency group (an increase from 24% of the adult population in 2007 to 30% in 2016).

- Accompanying the growth in a more frequent group of participants is an upward trend of people taking part in multiple sports in a 4-week period from a low of 9% in 2010 to 12% in 2016.

Geography and sports participation - variations and change

- There is considerable variation in participation rates in sport across different local authorities in Scotland. The extent of the variation is shown by comparing the average of sports participation rates (for 2015-17) for the top 'performing' quintile of local authorities (58%) with that of the bottom performing quintile (42%). This difference of 16% is large and significant.
- Comparing changes in sports participation rates over the period 2007/8-2011 to 2015-17 (based on three-year averages) only 9 local authorities have seen an increase in participation while 23 have witnessed a decrease.

Concluding comments

A number of factors influence the age profile of sports -some intrinsic to the sport and some defined by culture and expectation. We would broadly expect to see those sports where participation rates decline with age to be more physically challenging, particularly for example in what might be defined as 'contact sports'. But even this is to generalise and make stereotypical assumptions of what sport is right for what person at what age. The most physically challenging sports such as football and rugby can (and do) modify the way they are played to adapt to meet some of the inevitable physiological changes that the ageing process brings.

The relationship between ageing and sport and population levels of participation rates across the adult population may be seen as a factor of: a) the peak level of participation at a young age; and b) the rates of attrition (or 'net drop-out') as people get older and as they move through different life transitions. The 'peak level' of participation amongst young adults is in large part a product of childhood and teenage experiences where physical competencies, self confidence and social networks are formed. These are then sustained as 'sporting capital' into later life. The concern is that Scotland has shown no signs over the last 10 years of increasing the 'benchmark participation rate' in young adults or in making in-roads to attrition rates with age. Perhaps of even greater concern is the continued high drop-out amongst young teenagers and particularly young girls and the consequences for their 'sporting capital' and likelihood to come back to sport in later life. The 'gender gap' in sports participation starts very young suggesting an early socialisation process that informs and shapes gender stereotypes and behaviours.

This turns our attention to the relationship between sports participation and inequalities around gender and social class. When viewed through these lenses Scotland is a 'divided sporting nation'. The structural

inequalities of gender and class in sports participation appear entrenched in Scottish society with little change over the last 10 years despite public policy priorities targeting these groups.

The causes of this inequality are complex. In this review of the statistical evidence more has been said about the extent of inequalities than about its cause and its consequences. The concern is that with growing inequalities in wider society sports participation inequities may grow. Some might consider this to be the primary challenge facing public policy in sport in Scotland over the next 10 to 20 years and this is explored further in the key driver analysis and empirical modelling carried out in sections 8 and 9.

An overall theme of this section is that the apparent surface calm in community sport in Scotland as reflected in the overall trends in participation hides a turbulent undercurrent. Cross-sectional survey data under-estimates this turbulence by failing to reflect the temporal nature of individual sports histories characterised by intermittent periods of intensive activity followed by periods of drop-out and then, for some, re-engagement. But even a cross-sectional overview with its inbuilt inability to reflect individual case histories shows in aggregate that rather than stability the undercurrents of change in sport in Scotland are significant. These strong undercurrents may be highlighted as follows:

a) The trend towards engagement in fitness activities dominates and grows alongside a parallel decrease in the more traditional and organised sport participation market. The extent to which these two trends are interrelated is open to question but given that the overall rate of participation (the size of the cake) has remained static there is a suggestion of a substitution effect with fitness related sports taking the place of other activities rather than, as many might hope, complementing or adding to them.

b) Increasing polarisation between classes - the growth of an 'active class', which, in disposition and behaviours is a world apart from an increasingly left behind 'unsporty and inactive class' that now makes up a significant minority of the Scottish population.

c) The large geographical variations in participation between local authority areas explained only in part by variations in demography and levels of deprivation. More research is required to understand them and to establish any link that might exist between local public investment, policy, and practice and community sport outcomes.

These undercurrents pose challenges for community sport in Scotland. In many ways they reflect and are driven by the broader changes in the key socio-economic and cultural drivers that are explored later in this report.

Section 7

International comparisons: Scotland, the Netherlands and Denmark

This section explores comparative differences between trends and patterns of participation in Scotland (5.40m pop.), the Netherlands (17.08m pop.) and Denmark (5.77m pop.). Comparisons are made on an 'index' (relative approach) that show change over time. It is important to make clear that these comparisons are at a very broad and to some extent descriptive level. There is no attempt here to try to understand how the sport systems in the three countries came to be where they are or why the differences have occurred. These are all important and legitimate questions but are complex studies and outside the scope of this report. Notwithstanding, the findings highlighted in the comparative evaluation made in this report pose important questions for future research that focus on understanding why there are differences, how many might be a consequence of deliberative public policy intervention and which may be culturally transferable to the Scottish context.

Why has comparison been made with the Netherlands and Denmark? In part this is a pragmatic decision as the Observatory for Sport in Scotland has particularly strong links with expert researchers and policy evaluators in these two countries.³⁷ However, there are also strong arguments for comparing Scotland with these two countries which geographically are on similar latitudes albeit culturally, socially, politically and in terms of their physical landscape they are distinctive. Perhaps the strongest argument is that Denmark and the Netherlands, as demonstrated in the Eurobarometer survey referred to below, are generally recognised as having amongst the highest sports participation rates in Europe and in this regard may be benchmark countries that Scotland can aspire to.

7.1 Problems making comparisons

Section 3 has shown how defining and measuring participation in sport in one country is challenging. These challenges are multiplied when seeking to compare participation rates in sport across countries. In fact, making direct comparisons between countries is very difficult if not impossible. Problems of 'equivalence' of concepts and terms used which have culturally distinctive interpretations and issues of translation are

³⁷ Board members of OSS Dr Remco Hoekman and Henrik Brandt are respectively senior researcher at the Mulier Institute in the Netherlands and former Director of the Danish Institute for Sport Studies (Idan)

challenging if not intractable.³⁸ In addition there are technical and methodological factors that make comparison difficult³⁹. These challenges include:

- Different definitions of what is included in sport; different reference periods, for example previous week, previous 4 weeks, previous year.
- Different ways of asking the question (sometimes for example providing open ended questions and sometimes prompting from a list of sports or using a 'showcard')
- Different sampling design (quota versus random stratified) and methods of survey administration (household interview, telephone, online, mixed)
- Different target populations - sometimes including children and young people and sometimes only adults (often from 16 plus)
- Different standard ways of analysing the data - for example by different age groups and by different background demographic measures (some of these comparative problems can be overcome through different analysis specifications but these are bespoke and often not available in published materials).

7.2 Overcoming comparative problems - an 'Index approach'

To address the issues and challenges of direct comparison a different approach has been developed which allows for comparisons to be made but at a level of 'general patterns and trends'. This approach is similar to that taken by the COMPASS project which developed a higher level 'analytical framework' to support evaluative comparisons.⁴⁰ In this case an 'Index approach' has been taken examining changes in the patterns of participation by different social groups indexed against a baseline benchmark. An index approach works within the data comparison limitations to look for broad patterns of change and differences that can reasonably be discerned. It is not concerned with the detail but operates on the basis that:

- In making 'Index comparisons' the detailed differences in measurement are acknowledged and made transparent and any caveats that may be required are made clear.
- There is value in examining 'relative change' in 'similarly defined measures of participation'. So, for example, it may compare relative change over time of participation in one country (Scotland) that defines participation as 'on at least 4 occasions excluding walking in the last 4 weeks' - equivalent to at least once a week) with the Netherlands which defines participation as 'average of weekly sport

³⁸ See: Van Tuyckom, C., Bracke, P., and Scheerder, J. (2011). The problem of equivalence of meaning in comparative sports research. *European Journal for Sport and Society*, Special Issue, Vol 8/No 1+2, p 85-97

³⁹ See: Breedveld, K., and Hoekman, R. 2011. Measuring sports participation in the Netherlands - the need to go beyond guidelines. *European Journal for Sport and Society*, Special Issue, Vol 8/No 1+2, p117 - 132

⁴⁰ See: Gratton, C., Rowe, N. and Veal, A.J. 2011. International Comparisons of Sports participation in European Countries and update of the COMPASS Project. *European Journal for Sport and Society*, Special Issue, Vol 8/No 1+2, pp. 99-116

participation excluding walking'. Comparing these two indicators at an absolute level can be misleading. However, they are sufficiently similar that comparing 'relative changes over time' is reasonable and informative.

- In most cases the Index has been set at 100 at a base point which is usually 2008. To minimise the potential impact of an unusual or outlying year in 2008 the base reference point has been taken as an average of participation for both 2007 and 2008 combined. This anchors the Index comparisons on a sounder basis.
- In some case where relative changes have been measured e.g. by age groups the groups do not provide an exact match. Again, an Index approach facilitates reasonable comparisons in these cases.
- Care is taken in the interpretation of the Index scores. They represent 'relative changes' and must not be confused with absolute levels of participation.

7.3 How does participation in the UK compare with Denmark and the Netherlands?

By way of context it is useful to look at the most recent (2017) Eurobarometer data⁴¹ to gauge how sport participation in Scotland compares with that in Denmark and the Netherlands. The advantage of Eurobarometer is that it uses one standard survey with the same method with questions applied consistently across all 28 EU member countries to adults aged 15 years and over. The downside is that the question asked, 'How often do you exercise or play sport?' is very broad and may have different cultural connotations and interpretations in different countries. The specific problem for Scotland, that applies equally to other UK home countries, is that the sampling and results are presented for the UK only. However, it is reasonable to assume that the participation rates for Scotland will be broadly comparable to those of the UK.

Although there may be issues of comparability in interpretation (even where the same questions were asked in the different countries) it seems incontrovertible that there is a 'Scandinavian effect' on participation in sport. Figure 7.1 shows the percentages of adults who said they exercised 'regularly or with some regularity', i.e. that they participated at least once a week. On this measure Denmark has the third highest reported participation rate in Europe behind Finland and Sweden. The Netherlands is the highest ranked non-Scandinavian country in 4th place behind Denmark while the UK sits in 10th place some 20 percentage points behind the Finland in first place and 16 percentage points behind Denmark.

Figure 7.1 also shows the percentages of adults who said that they exercised or played sport 'regularly', i.e. at least 5 times a week. Finland and Sweden remain as standout countries on this measure of regular participation, but the UK performs at a similar level to Denmark and above the Netherlands. This is

⁴¹ See: Special Eurobarometer 472 available at: https://ec.europa.eu/sport/news/2018/new-eurobarometer-sport-and-physical-activity_en

consistent with the earlier analysis that identified a growing trend in Scotland towards a very active and sporty minority.

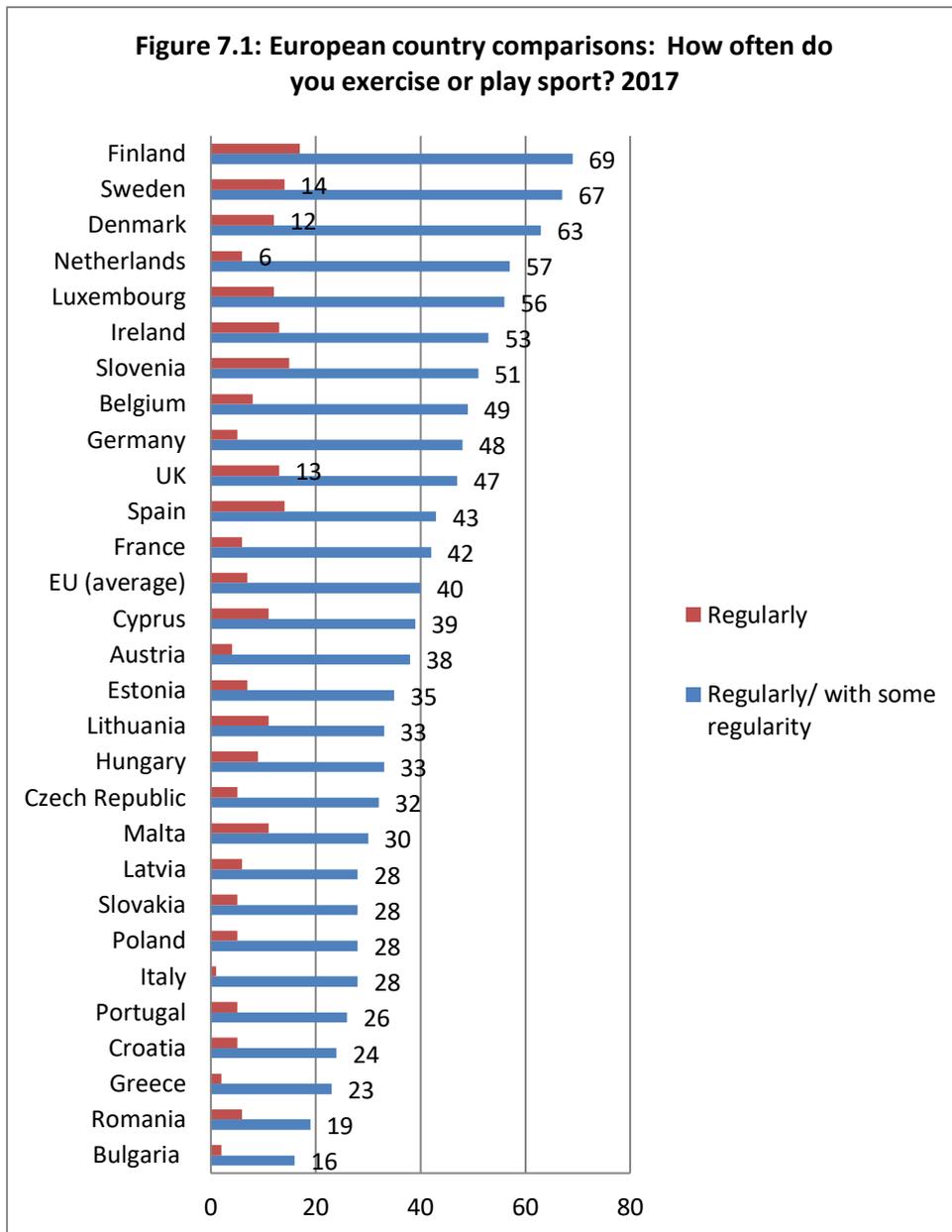
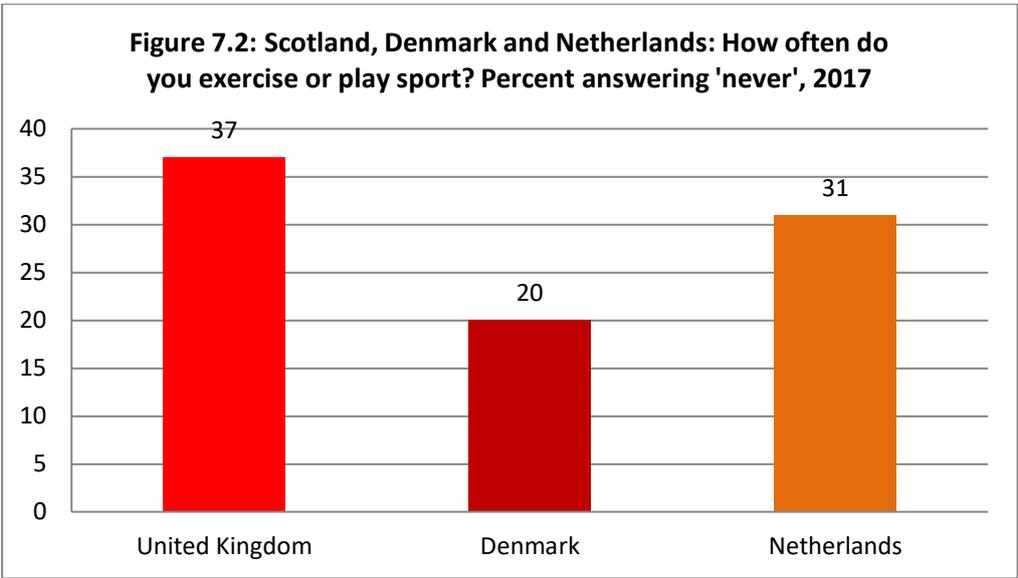


Figure 7.2 profiles the UK, Denmark and the Netherlands on the percentages who said that they 'never participate in exercise and sport'. On this measure the UK fares less well with 37 percent in this category compared with 20% in Denmark and 31% in the Netherlands. Again, this finding is consistent with earlier analysis that suggested a growing polarisation in Scotland between a significant inactive and sporting minority and an 'active and sporty class'.



These overall 'absolute' differences in participation between Scotland, Denmark and the Netherlands need to be borne in mind when interpreting the relative performances as demonstrated by the Index analysis that follows.

7.4 Scotland and the Netherlands compared

Figure 7.3 sets participation rates in 2008 (average of 2007 and 2008) as the Index base of 100. The indicator approximates in both cases to 'at least once a week excluding walking'. It shows that both Scotland and the Netherlands experienced a similar dip in rates of participation in 2009 followed by slow growth to 2013 with Scotland extending that growth to 2014. Since 2013/14 participation has remained static in both countries.

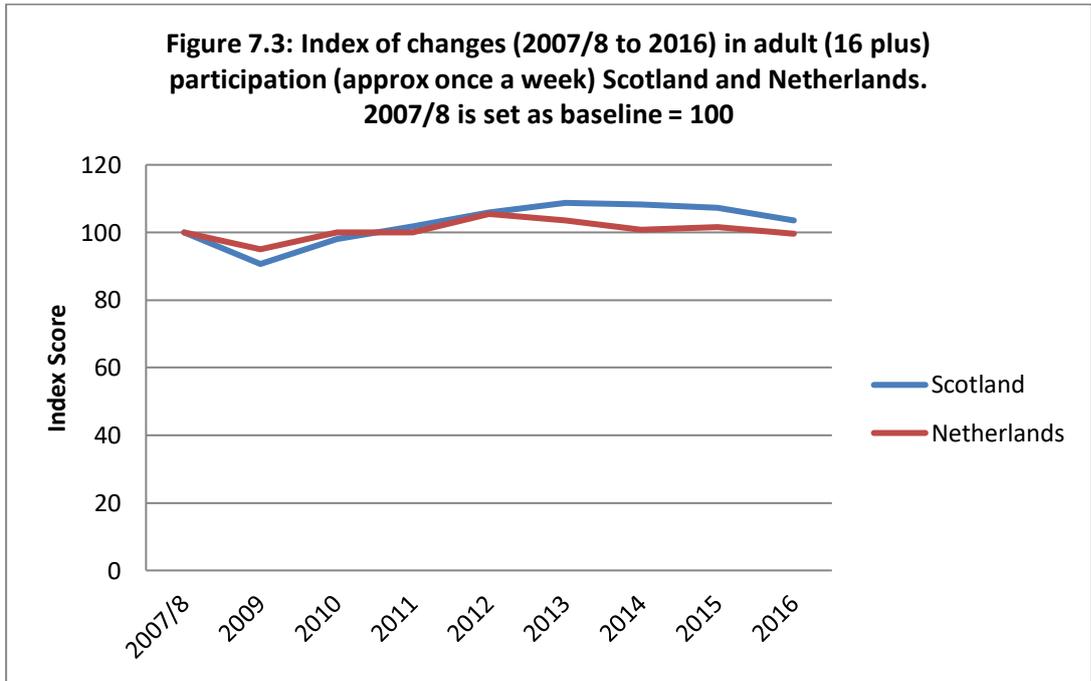
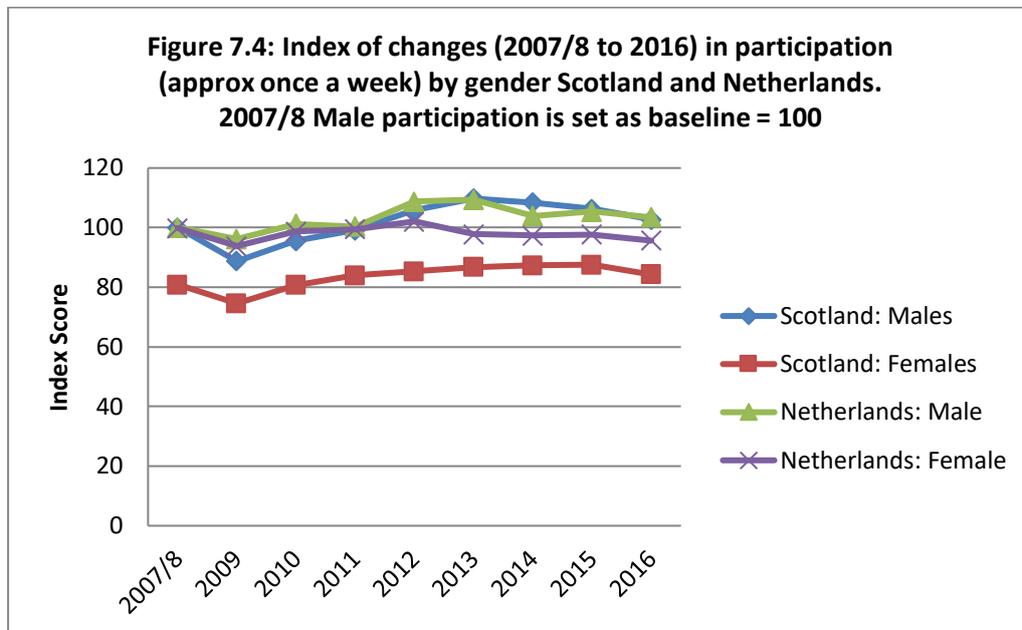


Figure 7.4 shows the relative growth of men's and women's participation since 2007/8 and the gender differences (men's 2007/8 participation rate is set as the base index of 100). There was no 'gender gap' in participation in the Netherlands up until 2011. Since 2011 men's participation in the Netherlands has been higher than women's but only marginally. The picture is different in Scotland with a large and persistent gender gap with men having higher participation rates than women with little sign of the gap narrowing.



It is informative to examine the comparative participation patterns of the young adult population. Figure 7.5 shows changes in participation for comparable age groups (16-24 in the Netherlands and 16-25 in Scotland). Rates shown are relative to the base Index participation rates in 2007/8, which has been set at 100. This chart shows a similar pattern for both countries with an indication of decreases in participation in recent years, for Scotland since 2013 and for the Netherlands since 2012. The recent decreases in Scotland have been more marked than those in the Netherlands. In both countries participation rates in 2016 for the young adult population are below those of the base year 2007/8.

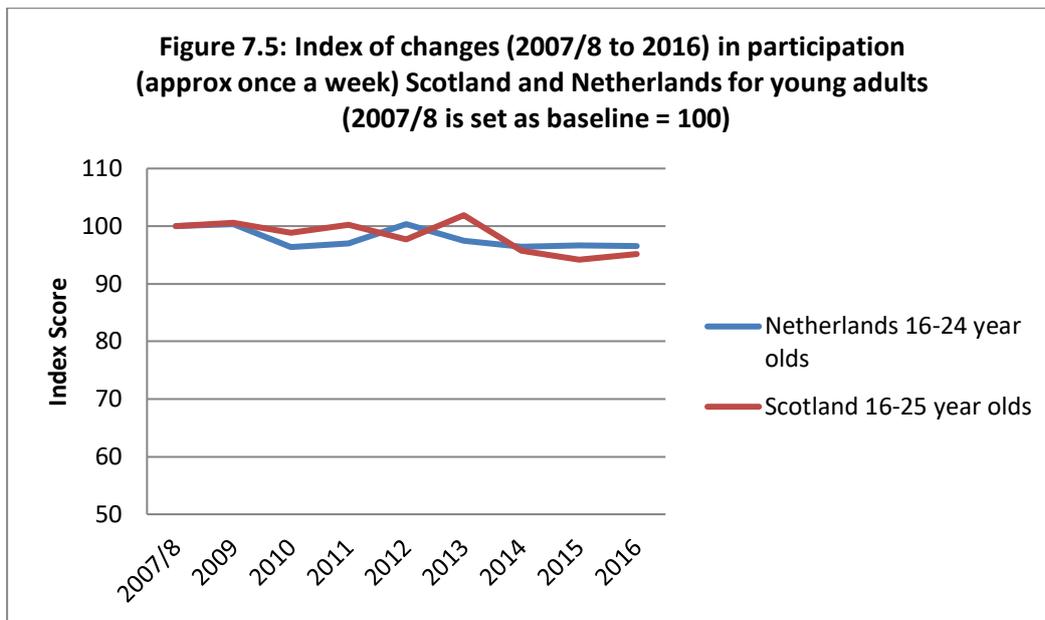


Figure 7.6 shows the relative drop-out between the ages of 16-24 years (25 years in Scotland) and 25 to 34 years (26 to 35 years in Scotland). The level of drop-out in 2007/8 is set as the base Index of 100. The chart shows that there has been greater variability in drop-out in Scotland than in the Netherlands. In both cases, however, the trend appears to be slightly more positive than negative with drop-out rates decreasing over the period. In Scotland there was one anomalous year (2015) where participation rates for the older age group exceeded that of the younger group.

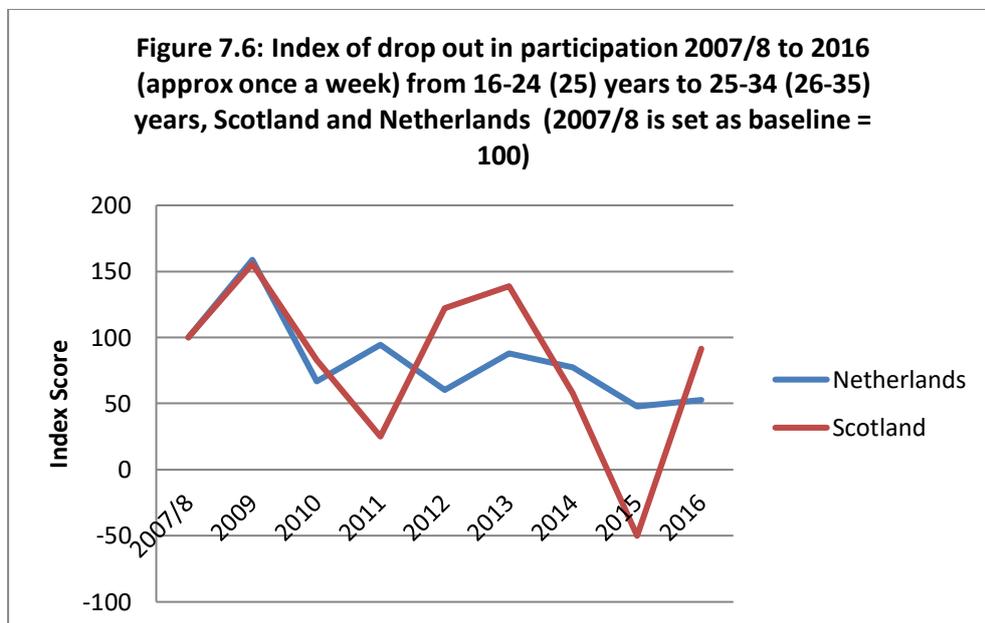
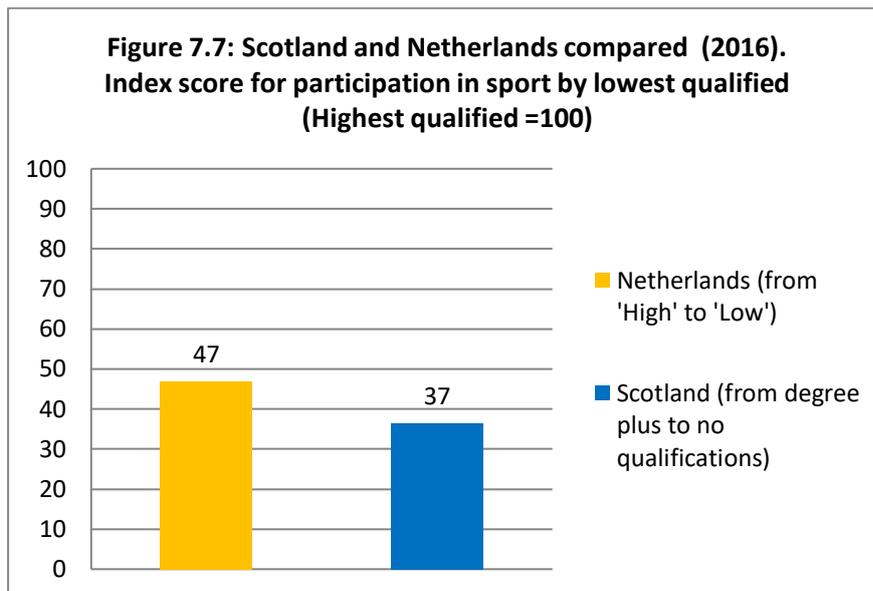


Figure 7.7 provides an indication of the extent to which participation in sport in Scotland and the Netherlands is structured by social class. The proxy measure for social class is 'highest level of qualification'. There are important caveats to the comparisons made. The measure in Scotland is 'at least once in previous 4 weeks excluding walking' while the measure in the Netherlands is 'average weekly sports participation

excluding walking'. The more frequent measure in the Netherlands is likely to paint a less favourable comparison with the Scottish figures than if directly comparable measures were used. Additionally, we cannot be sure we are comparing like-for-like in terms of the 'highest' and 'lowest' qualification categories. It is likely that the lowest category in Scotland is less qualified than the lowest in the Netherlands which will if anything make the picture in Scotland appear less favourable. Notwithstanding the analysis is useful as a broad basis for comparison. It shows that social class has a major impact on participation in sport in both countries - from a Scottish perspective it is perhaps surprising to find this 'social class gap' is so large in the Netherlands, however, it suggests that the class differences are greater in Scotland than the Netherlands.



7.5 Scotland and Denmark compared

The best comparative indicators we have available for Scotland and Denmark are 'at least once in the previous 4 weeks excluding recreational walking' (Scotland) and 'Do you normally participate in sport and exercise' (Denmark). Clearly these two definitions suggest quite large differences in interpretation and measurement. Comparing the absolute statistics would suggest that the best comparator for Scotland is to exclude recreational walking.

Figure 7.8 examines relative performance on broader trends going back to 1987 for Denmark and to 2007 for Scotland. This shows an index of change over time with the 2007 participation rate set as a base of 100. The statistics show the success story of community sports participation in Denmark with a continuous and sustained increase in participation between 1987 and 2011. However, in Denmark participation rates dipped post 2011 for the first time in the countries recent history. Unfortunately, the time series for Scotland is much shorter but the pattern of a peak in 2011 with a subsequent dip in participation is similar although Scotland did not have the 'growth spurt' between 2007 and 2011 that was experienced in Denmark.

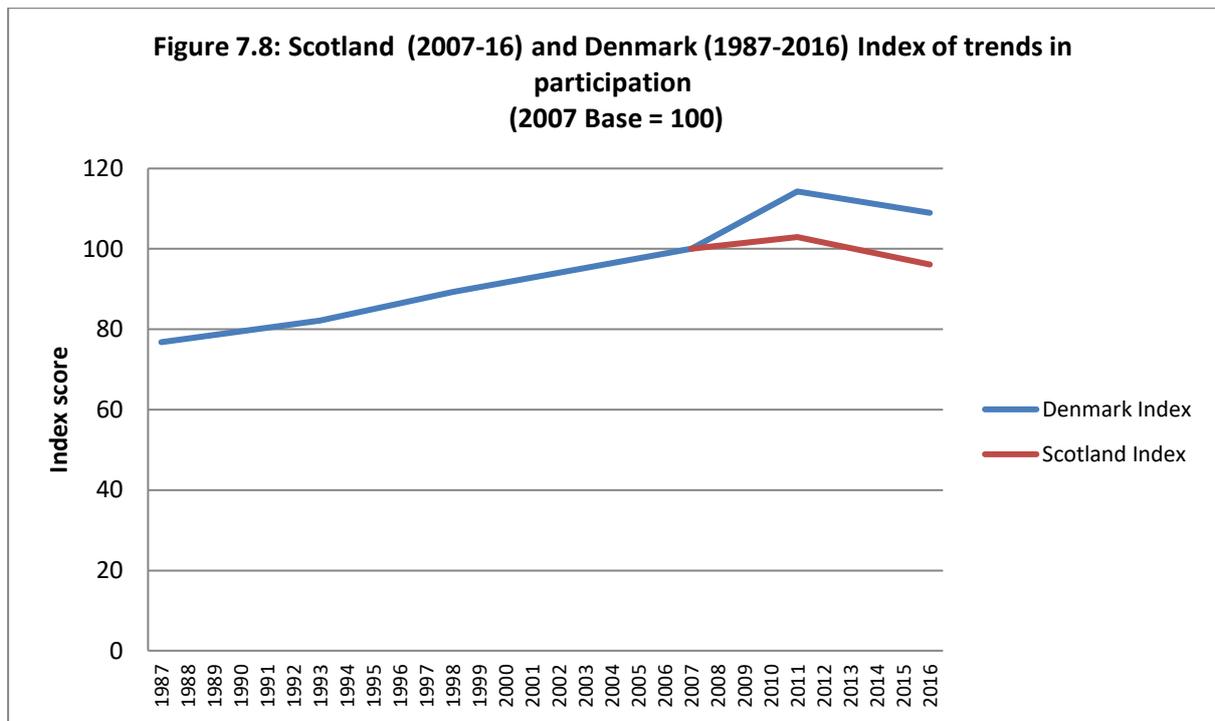
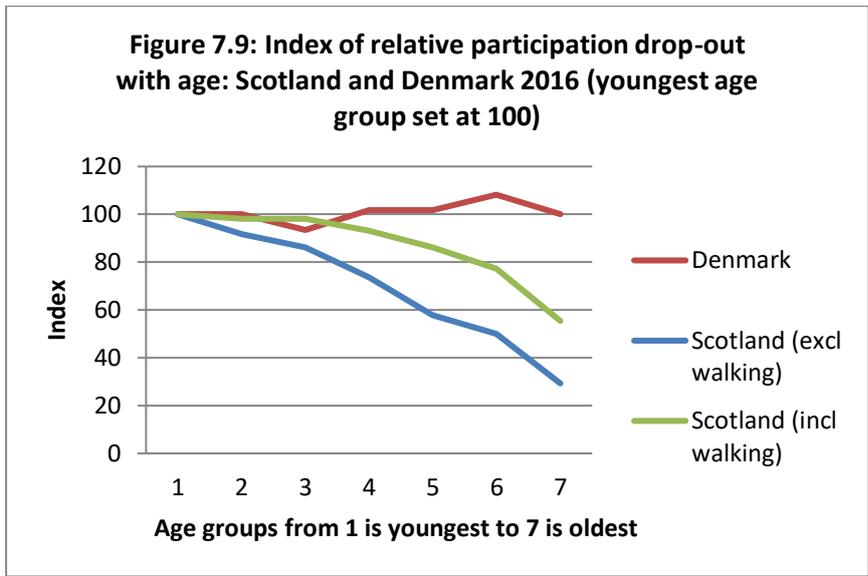
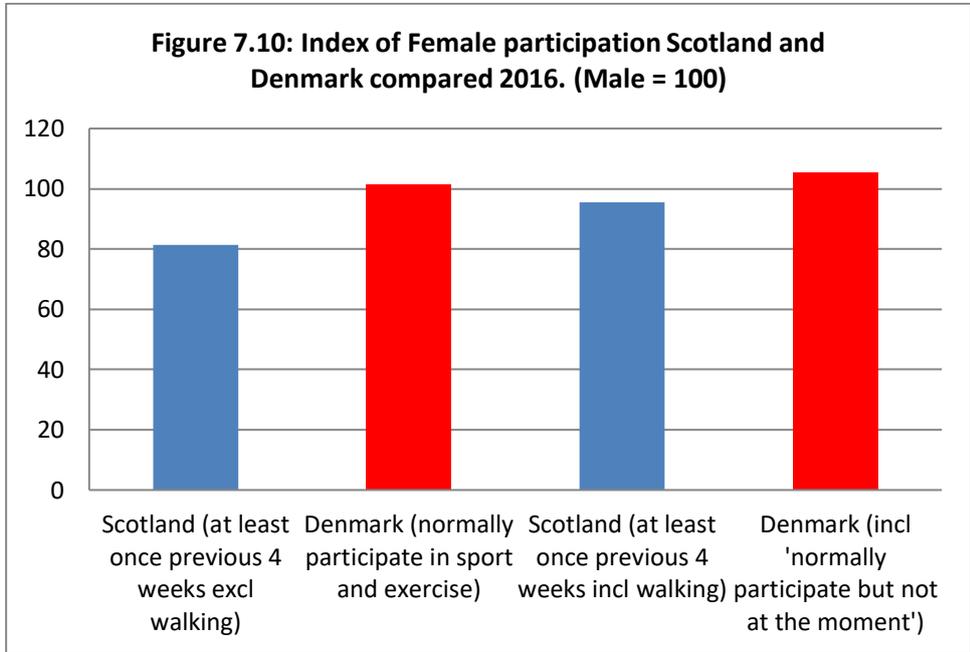


Figure 7.9 shows comparisons in participation with the youngest age group set at an Index score of 100.⁴² The measure in Denmark is the percentage who 'normally participate in sport/ exercise'. As neither measures are an exact 'fit' with the definition used in Denmark two comparative indicators are shown for Scotland, the percentage participating in sport and exercise at least once in the previous four weeks including and excluding recreational walking. In Denmark there is little drop-out in participation with age while in Scotland the drop-out starts early and accelerates into middle and older age. Those aged 66 to 75 years in Scotland are 50% less likely to participate than 16 to 25-year olds when recreational walking is excluded whereas in Denmark participation peaks in older age at 60-69 years.

⁴² The age groups in Figure 7.9 for Scotland are (1) 16-25 yrs; (2) 26-35 yrs; (3) 36-45 yrs; (4) 46-55 yrs; (5) 56-65 yrs; (6) 66-75 yrs; (7) 76 plus. The age groups for Denmark are: (1) 16-19 yrs; (2) 20-29 yrs; (3) 30-39 yrs; (4) 40-49 yrs; (5) 50-59 yrs; (6) 60-69 yrs (7) 70 plus



Finally we examine the gender differences in participation found in Scotland and Denmark. Figure 7.10 shows one of the major defining differences between community sport in Scotland and Denmark. In Denmark women are as likely to participate in sport as men and may even be slightly more likely to participate. In Scotland, depending on the definition used, sports participation by women is some 20% lower than men's and is showing no sign of narrowing. This difference in the 'gender gap' between the two countries goes some way towards explaining why Denmark rates as one of the highest sport participant countries in the world while Scotland at best is a 'mid table performer'.



Findings

- Denmark has the third highest reported participation rate in Europe (adults who said they exercised 'regularly or with some regularity' i.e. at least once a week) behind Finland and Sweden. The Netherlands is the highest ranked non-Scandinavian country in 4th place behind Denmark while the UK sits in 10th place some 20 percentage points behind Finland in first place and 16 points behind Denmark.
- When compared on a more frequent level of participation (percentages who exercised or played sport 'regularly', i.e. at least 5 times a week) the UK (13%) performs at a similar level to Denmark (12%) and above the Netherlands (6%). This is consistent with the earlier analysis that identified a growing trend in Scotland towards a very active and sporty minority.
- The UK has 37% of the adult population who report that they 'never participate in exercise and sport' compared with 20% in Denmark and 31% in the Netherlands.

Scotland and the Netherlands compared

- Both Scotland and the Netherlands experienced a similar dip in rates of participation in 2009 followed by slow growth to 2013 and in the case of Scotland that growth extending to 2014. Since 2013/14 participation has remained static in both countries.
- There was no 'gender gap' in participation in the Netherlands up until 2011. Since 2011 men's participation in the Netherlands has been higher than women but only marginally. The picture is very different in Scotland with a large and persistent gender gap with men having much higher participation rates than women and little sign of the gap narrowing.
- Social class has a major impact on participation in sport in both Scotland and the Netherlands, but comparative analysis suggests that the class differences are greater in Scotland.

Scotland and Denmark compared

- Statistics show the success story of community sports participation in Denmark with a continuous and sustained increase in participation between 1987 and 2011. However, in Denmark participation rates dipped post 2011 for the first time in the country's recent history.
- Unfortunately, the time series for Scotland is much shorter than for Denmark. The pattern of a peak in 2011 with a subsequent dip in participation is similar, although Scotland did not experience the 'growth spurt' between 2007 and 2011 seen in Denmark.
- in Denmark there is little drop-out in participation with age while in Scotland the drop-out with age starts early and accelerates into middle and older age. Those aged 66 to 75 years in Scotland are 50% less likely to participate than 16 to 25 year olds when recreational walking is excluded whereas in Denmark participation peaks in older age at 60-69 years.

- In Denmark women are as likely to participate in sport as men and may even be slightly more likely to participate than men. In Scotland, depending on the definition used, sports participation by women is some 20% lower than men's, and is showing no sign of narrowing.

Concluding comments

This section has shown how sports participation rates in Scotland compare with those in the Netherlands and Denmark on a range of measures. The evidence shows that Denmark particularly but also the Netherlands less so have rates of participation that Scotland can currently only aspire to. When the differences are examined in more detail looking at the patterns of participation and trends based on a relative (index based) assessment some important conclusions emerge:

a) The greatest differences in sports participation in Scotland compared with the Netherlands and Denmark relate to age and gender. In both the Netherlands and Denmark, the overall high participation rates are underpinned by equality in participation between men and women. In Denmark the profile of participation by age is, at least from the perspective of our shores, quite remarkable with older people as likely to take part in sport as their much younger counterparts. This evidence challenges the implicit assumption often underpinning attitudes towards sports policy in the UK that the decline in participation in sport as people get older is inevitable and the best we can do is attenuate it.

b) Some of the broad challenges facing sport are not unique to Scotland. Even in countries like the Netherlands and Denmark which set the bar there are signs of participation coming under pressure with the possibility of rates stagnating or decreasing.

c) It is also illustrative to understand that the social structuring of sport is not unique to Scotland or the UK and that countries like the Netherlands face similar challenges to Scotland when it comes to widening the participation base to reach sections of society that experience disadvantage and relative poverty.

There are limits to this analysis. It provides insight to key differences that define community sports participation in Scotland compared with the Netherlands and Denmark and points towards 'the art of the possible' and potential shared problems and challenges. But showing the differences is one thing; understanding why they occur - and most importantly the lessons that can be learnt from these countries that are culturally transferable - is the next critical stage.

Section 8

Drivers of community sports participation - a glimpse of the future?

This section widens the field of vision beyond sport to explore the social, economic and cultural drivers (referred to here-on-in as 'the key drivers') that impact on sports participation and at times are impacted by it. The predominant direction of causality is from key driver to sports participation, but this is not to underestimate the power of sport to contribute in positive ways towards wider social trends. An example is the potential of sport to improve health and to help lift people out of poverty through the skills and aspirations it can foster. However, the reality is that sport, although itself a potential agent of change, is more framed and influenced by than an influence on wider societal trends.

Cause and effect is not at all clear and simple. As with any area of public policy that is seeking to influence behaviours the relationship between public policy intervention, the key drivers that impact and contextualise it and the behavioural outcomes that we are seeking to achieve is complex and inherently unpredictable. In this section and the one that follows we have attempted to isolate, explain and model the key drivers that will impact on sports participation in Scotland over the next 10 to 20 years. In so doing we have inevitably simplified these relationships which are characterised by dependencies and interdependencies not just between sport and the drivers but between the drivers themselves. Simplification is inherent in any modelling process - and is not to be apologised for. Through a degree of simplification, we can seek to explore and gain useful insight whilst always understanding that we are seeing 'glimpses of possible futures' and not snapshots or blueprints of what that future will look like. In the process we can assimilate, question, adapt, plan and review in seeking to shape our preferred future rather just be a hostage to where the future might take us.

There are three ways of thinking about the future. One is to crunch all the numbers and come up with an empirical and ostensibly objective model usually projecting past trends and associations. Another is to ask those with experience and expertise to make subjective judgments that balance knowledge with intuition and insight. The third is to combine the two using 'objective evidence' in combination with subjective insight to build scenarios with associated probabilities, risks and potential impacts. It is this third approach - a synthesis of insight and empirical evidence - that has shaped the approach taken here.

Before we carried out the quantitative statistical modelling of the key drivers we engaged in a qualitative exercise with a range of influential stakeholders in Scottish sport.⁴³ This exercise helped to test the drivers we had identified to see if they resonated with those at the cutting edge of policy, practice and academic thought in Scotland. It also provided, through a systematic approach, an opportunity to explore the potential importance and impact of these drivers. The outcomes, albeit not necessarily representing the views of all Scottish sport, provide a useful insight on how stakeholders in Scotland see the future for community sport and helped to develop the theoretical associations between the drivers and sports participation that underpins the modelling approach in section 9.

In asking Scottish stakeholders what they think the future holds for community sport we decided against a blank sheet in favour of a more structured approach whilst allowing for flexible and creative responses. Identifying 'key drivers' is part subjective and part empirical. Drawing on its own knowledge bank⁴⁴ and expertise OSS identified 13 social, economic and cultural 'key drivers' that might impact on community sport in Scotland over the next 10 to 20 years (See Figure 8.1). Each driver was given a 'Possible Impact' descriptor that provide both positive and negative outcomes.

Figure 8.1 Key socio-economic and cultural drivers impacting on sport

Key driver (KD)	Possible Impact
KD1: changes in age structure - ageing population	Will an ageing population lead to a decline in participation? Net 'in-migration' may drive participation up with a younger more mobile population? Consider the potential generation effect. Will increasing numbers of retired people living longer increase participation? Will young people today follow the same trajectory as their parents, or do less or more sport?
KD2: health status/overweight/obesity	Are the trends in numbers of obese and overweight people likely to increase or perhaps to stabilise? Could they even come down? Is overweight/ obesity likely to be a driver of participation behaviours or a consequence of it? What are the likely demographics around this - and what are the potential consequences? Will fashion and cultural references to body image increase their potentially negative impact on self confidence and self efficacy - or will society start to shift its values, perceptions and associations in a more positive and confidence building direction?
KD3: social media and technology- the distracted young	Is there a discernible trend towards lower participation rates (outside school) amongst the young? Can this be associated with technology/ social media use and extension as a mass phenomenon? Is this likely to grow as a negative factor or are there potential counterbalancing trends that may make technology a motivator for participation?
KD4: sport and education	What does the future hold for sport in schools? Will we see a shift towards competitive sport that favours the sporty kids or will school sport increasingly see its role as enabling and empowering the less able and sporty? Or is there no contradiction? Is the PE profession likely to strengthen in primary schools, or will non-specialist teachers continue to be the norm? Will PE as a subject strengthen its position in the curriculum or be

⁴³ See: Rowe, N. F., 2018. *Future gazing: what do today's stakeholders think about tomorrow's future for community sport in Scotland?* Edinburgh: OSS.

⁴⁴ OSS has prepared a number of background Key Driver Reviews which explores the evidence around the Driver and its relationship to sport.

KD5: gender and sport - societal shift or more of the same

pushed out as demands for improved academic performance dominate? Will the school estate increasingly become available for community use or will inertia prevail, and facilities fail to keep up with consumer preferences? Will increases in the numbers in Higher Education support growth in sport, or has this peaked with more young people opting to go down a vocational route?

Will longstanding gender differences in participation be sustained or are we on the threshold of a significant societal shift as women gain greater equality in the workplace and in other aspects of their lives? Are the structural shifts towards more informal and fitness-based activities likely to have a disproportionate effect on women's participation? Is Scotland likely to track the experience of Scandinavian countries where women have higher participation rates in sport than men? Or are such changes not on the foreseeable horizon?

KD6: socio-economic inequality

Trends are towards growing inequality and an increasing gap between the wealthy top 20 percentile and the poor bottom 20 percentile. Are these trends likely to continue? What are potential consequences for participation? Also, what is impact of geography on multiple deprivation? Sport participation is disproportionately lower for the poorest groups living in multiple deprivation areas. Will public policy be able to shift these trends? Is the relationship between sport participation and social class inevitable? Is it all about resources, or is there something more fundamental about value systems?

KD7: provision - austerity in public investment

Are the impacts of policies on austerity likely to still manifest themselves, or are we now through the worst and in new age of public investment (or something in-between)? Is there likely to be a decline in the use of indoor facilities? Is the stock ageing/ becoming outdated? Have charges gone up to aid cost recovery? Is 'sports development' in local authorities as we use to know it a thing of the past? Is the future one of inevitable slow decline in what we currently understand as the traditional infrastructure for community sport? Will the private sector step up to the plate? Will new models of social enterprise or co-operatives emerge? Are there any innovations on the horizon that may support a resurgence in community sport activity?

KD8: structure of employment - the gig economy

What have been the trends in employment/ unemployment? What does the future hold? Does the increasing insecurity of employment/ unusual working hours/ low pay/ demands for flexibility impact on sport participation (positively or negatively)? Are the days of the 'philanthropic employer' with corporate facilities and social clubs a thing of the past, or is a resurgence in social responsibility and recognition of the 'economics' of a fit and healthy workforce likely to drive corporate interest in sport and healthy lifestyles?

KD9: volunteers - the bedrock of community sport

Is volunteering as we currently understand it a thing of the past? Are we asking too much of our volunteers? Are they likely to be a decreasing 'force' and if so, is it possible for the 'market' to replace them? Or perhaps we are starting a new wave of community engagement/ community spirit as people look for meaning in their lives? Is there a possible generation effect with a potentially decreasing group of older volunteers taking on an increasing burden until eventually the system will creak and fail? Or is the younger generation up for the challenge?

KD10: the ability of sport to adapt and change to meet changing consumer preferences

Will sports need to modify their offer to meet changing consumer preferences? How flexible are they likely to be? Can more 'traditional sports' maintain their market share or is the shift to informal sport likely to continue? Are these changes in the structure of sports participation likely to be an opportunity or threat? Can 'physical activity' levels go up while sport participation decreases? Does this matter from a broader public policy perspective? Will traditional sports clubs see declining membership as people adopt more nomadic behaviours? Or will people react to a sense of

KD11: the major event impact and elite sport 'trickle down'

increasing isolation and increasingly look for the social connections that sport can bring?

Has there been any positive impact from major events in Scotland - for example the 2014 Commonwealth Games and the 2014 Ryder Cup? Will major events be likely to play an important part in driving participation in community sport in the future? Or, will we see a growing 'reality gap' or disconnect where everyday sport and elite sport are seen as different non-transferable worlds? Could a growing cynicism about elite sport performance have an 'anti-role model' impact or will elite sports people continue to inspire - particularly the young?

KD12: 'new age' fitness and health

There is a fashionable trend towards health and fitness lifestyles amongst a substantial minority. This is linked to gym membership and changing lifestyle in for example diet and the use of supplements etc. These trends overlap with growing levels of inequality. Are they sufficient for a 'sport participation boost' in their own right or do they just magnify inequality with an elite 'super group' of the healthy and fit and a large 'underclass' of left behind sedentary and unhealthy people?

KD13: access to open space and countryside -low density rural versus high density urban

What are the internal migration trends in Scotland? Do those living in rural areas get an 'open space environmental boost' not made up by built infrastructure available to urban dwellers? Or does living in isolated communities in rural areas mean less access to built facilities and poorer infrastructure and access issues? Is this likely to be a growing or decreasing problem?

In May 2018 two meetings were convened by OSS in Edinburgh over two days. A 'University Forum' attended mainly by academics from Scottish universities and a 'Think Event' attended by representatives from a wide range of agencies across the Scottish sport sector including Scottish Government, **sportscotland**, national governing bodies of sport, local authorities and higher education. In June 2018 a 'Community Forum' meeting was convened in Aberdeen with local stakeholders from academia and from policy and practice which tested out the preliminary results from the Edinburgh meetings. In total 33 responses to the future gazing exercise were received. In some cases, these were from individual delegates and in some from small groups of 2,3 or 4 delegates working together.

The future gazing exercise is appended as Annex 2 including the specific 'scoring process'. It involved taking each driver in turn and providing a rating (based on impact over the next 10 to 20 years) on five criteria as follows:

- a) the likely direction of the impact (up or down)
- b) the probability of the impact
- c) the likely scale of the impact
- d) the incidence of impact (who in the population will it impact on the most?)
- e) the ability of public policy intervention to impact on this driver in a positive way

There are four possible responses to key drivers that impact on sport. One is to just accept that it will happen and that there is not much we (public policy intervention) can do about it (the '**Inevitable Driver**'). The second is to believe that in the case of a positive driver we cannot do a lot about it but we can at least go

with the flow (the '**Go with the flow driver**'). The third case, again with a positive driver, is to believe we can either reinforce it or speed it up to maximise the beneficial impact (the '**Ride the wave driver**'). The final case is a negative driver that we believe we can either slow down or more ambitiously reverse the impact or perhaps adapt or modify the response to it to turn a negative into a positive (the '**Reversible driver**').

Figure 8.2 summarises the outcomes from the stakeholder consultation exercises. The results are presented graphically rather than numerically to reflect the qualitative nature of the exercise. It should be made clear that we were not party to the reasoning behind the views that underpinned the ratings given and this would be worth further exploration.

The results from this exercise must be interpreted carefully. The views summarised and presented in this report are not necessarily fully representative of Scottish sport but they do reflect a broad cross-section of knowledgeable and influential people across the Scottish sporting landscape. The duration of the exercise was also such that respondents were forced to give quick replies albeit after some limited interaction and discussion with colleagues. In quantifying these results we must not forget that they are opinion based - people bring their own value systems, ideologies and perspectives to their judgments, but they do reflect the views of 'informed people' with many combined years of working in sports development in Scotland.

Figure 8.2 Key driver analysis: the outcome from stakeholder consultation

Key driver (KD)	Direction of Travel	Scale of impact combined with likelihood of it happening	Ability of public policy to make a difference	Type of driver	Priority for public policy
KD1: changes in age structure - ageing population	↓	● ●	● ●	Reversible	2
KD2: health status/overweight/obesity	↓ ↓ ↓	● ● ●	● ●	Reversible	1
KD3: social media and technology- the distracted young	↓ ↓	● ● ●	●	Degree of inevitability	1*
KD4: sport and education	↑	● ●	● ● ●	Ride the wave	1
KD5: gender and sport - societal shift or more of the same	↑ ↑ ↑	● ●	● ●	Ride the Wave	2
KD6: socio-economic inequality	↓ ↓ ↓	● ● ●	● ●	Reversible	1
KD7: provision - austerity in public investment	↓ ↓ ↓ ↓	● ● ●	● ● ●	Reversible	1
KD8: structure of employment - the gig economy	↓	● ●	●	Degree of inevitability	3
KD9: volunteers - the bedrock of community sport	↓	● ●	●	Degree of inevitability	2*
KD10: the ability of sport to adapt and change to meet changing consumer preferences	↑	●	●	Degree of inevitability	3*
KD11: the major event impact and elite sport 'trickle down'	↓	●	●	Degree of inevitability	4
KD12: 'new age' fitness and health	↑ ↑	●	●	Go with the flow	4
KD13: access to open space and countryside - low density rural versus high density urban	↑ ↑	●	● ●	Go with the flow	2

The analysis of the responses suggests a pessimistic view from stakeholders about the direction of travel for sports participation with 8 of the 13 key drivers thought to be pushing down rather than pulling up participation. The strength of this downward push was also felt to be greater in aggregate to the factors working in favour of sport. The drivers that were felt to have the greatest downward impact were 'provision-austerity in public investment' followed by 'health status/overweight/obesity' and 'socio-economic inequality'. At the other end of the spectrum 'gender and sport - societal shift or more of the same' was felt to be likely to pull sport participation up from current levels as were 'new age fitness and health' and access to open space and countryside - low density rural versus high density urban'. Generally, the stakeholders in Scottish sport involved in this exercise believed that public policy could make a positive difference to the way

these drivers impact on sport if the right choices were made and resources allocated. This was particularly felt in relation to 'sport and education' and 'provision- austerity in public investment'.

Taking account of all the views expressed an attempt has been made to rate the priority each driver might receive in public policy for sport in Scotland. Five drivers emerged as a priority - health status/ overweight/obesity; social media and technology - the distracted young; sport and education; socio-economic inequality; and provision - austerity in public investment.

Certain drivers have been given an asterisk as they pose particular challenges where the impact is potentially high, yet stakeholders feel that we have little ability to bring about change i.e. there is a degree of inevitability attached to them. Of concern is the 'social media' (new technology) related driver and to a lesser extent the 'volunteers' driver. These drivers need a focused debate and innovative thinking if we are to shift this sense of 'inevitability' to build on their positive aspects and to slow down or reverse their potentially negative influences.

Findings

- Analysis of the responses from a range of stakeholders in Scottish sport suggests a pessimistic view about the direction of travel for sports participation with 8 of the 13 key drivers thought to be pushing down rather than pulling up participation.
- The drivers that were felt to have the greatest downward impact were 'provision-austerity in public investment' followed by 'health status/overweight/obesity' and 'socio-economic inequality'. At the other end of the spectrum 'gender and sport - societal shift or more of the same' was felt to be likely to pull sport participation up from current levels, as were 'new age fitness and health' and 'access to open space and countryside - low density rural versus high density urban'.
- Generally, the stakeholders in Scottish sport engaged in this exercise believed that public policy could make a positive difference to the way these drivers impact on sport if the right choices were made and resources allocated. This was particularly felt in relation to 'sport and education' and 'provision- austerity in public investment'.
- Five drivers emerged as a priority - health status/overweight/obesity; social media and technology - the distracted young; sport and education; 'socio-economic inequality'; and 'provision - austerity in public investment'.
- Certain drivers have been identified as posing particular challenges, with stakeholders attaching a sense of negative inevitability to them. Of concern is the 'social media' (new technology) related driver and to a lesser extent the 'volunteers' driver.

- Analysis of responses from a range of stakeholders in Scottish sport suggests a broadly pessimistic view about the likely direction of travel for sports participation with 8 of the 13 key drivers thought to be pushing down rather than pulling up participation. The strength of this downward push was also felt to be greater in aggregate to the factors working in favour of sport.
- The drivers that were felt to have the greatest downward impact were 'provision-austerity in public investment' followed by 'health status/overweight/obesity' and 'socio-economic inequality'. At the other end of the spectrum 'gender and sport - societal shift or more of the same' was felt to be likely to pull sport participation up from current levels as were 'new age fitness and health' and 'access to open space and countryside - low density rural versus high density urban'.
- Generally, the stakeholders in Scottish sport engaged in this exercise had an optimistic view that public policy could make a positive difference to the way these drivers impact on sport if the right choices were made and resources allocated. This was particularly felt in relation to 'sport and education' and 'provision-austerity in public investment'.
- Five drivers emerge as a priority - health status/ overweight/obesity; social media and technology - the distracted young; sport and education; 'socio-economic inequality'; and 'provision - austerity in public investment'.
- Certain drivers have been identified as posing particular challenges where the impact is potentially high, yet stakeholders feel that we have little ability to bring about change - i.e. there is a degree of inevitability attached to them. Of particular concern is the 'Social media' (new technology)' related driver and to a lesser extent the 'Volunteers' driver. These drivers need a focused debate and innovative thinking if this sense of 'inevitability' is to be shifted to build on their positive aspects and to slow down or reverse their potentially negative influences.

Concluding comments

This section takes a wide-angle lens view of sport in Scotland. This sees sport not as an isolated activity but as one that is socially, economically and culturally framed, influenced and impacted. The past trends in sports participation explored in the first seven sections of this report are a consequence of these broader influences. The future for sports participation will be shaped by them. It would be overly negative to say that sport is a 'hostage' to these wider trends. Sport itself can make a difference. But it would be a failure of vision and imagination if sport policy was not to recognise the critical interdependencies it has with them. Understanding these broader trends and their relationship to sport supports a more realistic and potentially more effective basis for sports policy and practice.

The analysis in this section has been based on a self-selected cross section of Scottish stakeholders albeit drawn from an influential cross section of key players in Scottish sport. Although not necessarily representative it is indicative of the sentiments, feelings, optimism and pessimism of a selection of those whose job it is to frame the narrative debate and research framework, to set sports policy in Scotland and to deliver it on the ground. The picture that emerges is that although there is a sense of 'determinacy' for some of the key influencers of sport there is a greater belief of 'agency' - that we have choices and that we can make a real and positive difference if there is the political will to do so, the resources made available and the insight to drive innovative practice.

The future is seen to pose both opportunities and threats. Stakeholders see opportunities in how women are being empowered in society and how they will relate to sport; how a more educated society can become a more active and sporty one; how the cultural shifts around attitudes to health and nutrition can raise consciousness and drive positive life enhancing behavioural changes; and the potential that increased access to open space and countryside has to widen horizons and opportunities for active engagement with our environment.

However, these positives are tempered by concerns, including the impact on sport of increasing socio-economic inequalities; the disproportionate impact on public services for sport with austerity; and a pervasive unease about where trends in social media and technology are taking us.

The next section explores some of these trends and their possible impact through the development of statistical models. It takes an approach that examines different 'what if scenarios' and their consequences on sports participation over the next 10 years.

Section 9

Modelling Scotland's sporting future - what might sport in Scotland look like in 10 years' time?

In this section a more quantitative perspective is taken on what the future might look like in Scotland over the period 2018 to 2028. The same caveats apply to this analysis as to the qualitative one in the previous section. Predicting the future is a hazardous pursuit. Some trends are like icebergs, slow and to some extent predictable, while others are subject to rapid change or come out of left field in a way that few if any could anticipate. In hindsight they may seem obvious - in foresight few if any see them coming. We cannot predict the unpredictable and our models make assumptions that explore change but only within what are considered realistic parameters based on what we have seen in the recent past.⁴⁵

The modelling approach taken was based on examining trends and associations between sports participation and selected key socio-economic and cultural drivers. It is underpinned by pragmatism. Three futures were explored - one where the trends continued ('**On Trend**'); one where we made pessimistic assumptions about the direction of travel of the driver ('**Pessimistic Scenario**') and one where we made optimistic assumptions about the direction of travel ('**Optimistic Scenario**'). The methodology is provided in Annex 3⁴⁶ and may be summarised as follows:

a) The relationship between each of the key drivers was theoretically associated with sports participation (up or down). This theoretical link was informed by the qualitative research presented in the previous section, by in-depth reviews of the evidence around each driver and by the authors and model builders' knowledge about these relationships.

b) Sports participation trends were used from the Scottish Household Survey (as presented in section 5). The measure used was 'adult' (16 plus) participation at least once in the previous 4 weeks excluding walking. This was the 'dependent variable' in the models.

⁴⁵ See: Taleb, N. N., (2007). *The Black Swan: The Impact of the Highly Improbable*. New York: Random House and Penguin Books. ISBN 978-1-4000-6351-2. Expanded 2nd ed, 2010 ISBN 978-0812973815.

⁴⁶ The modelling was carried out by economists at the Sports Industry Research Centre (SIRC) at Sheffield Hallam University.

c) The quality of the time series data was explored to establish key 'markers' or 'indicators' of the trends in each of the 13 drivers over the last 10 to 20 years that could be used for modelling purposes.

d) Where acceptable data was available and the relationship supported it, a linear trend was constructed for the key driver indicator(s) for the period 2018 to 2028.

e) A linear regression model of sports participation was then constructed to approximate associations between sports participation (the dependent variable) and the key driver in question.

The outcomes from this modelling need to be treated with care. They should be seen more as exploratory 'projections' than as 'predictions'. The scenarios explored - optimistic and pessimistic - are about 'what ifs' and not 'what will be' or 'what is likely to be'. That is not to say that they will not happen. They are possible futures in an infinite list of possible futures. However, they are plausible and they provide a sense of the range in outcomes between what may be considered a pessimistic scenarios where all the drivers in combination move in a bad direction for sport and an optimistic scenario where they all move in a positive direction (this is summarised in Figure 9.7). In taking this approach we can 'stress test' sports policy and practice and explore where the pressure points might be and where we might need to be vigilant or take 'pre-emptive' action. It also allows us to see where the biggest threats to sport in Scotland might lie and where we might make the biggest positive impact if we intervened successfully.

The following shows the results of the modelling for selected key drivers.

KD2: health status/overweight/obesity

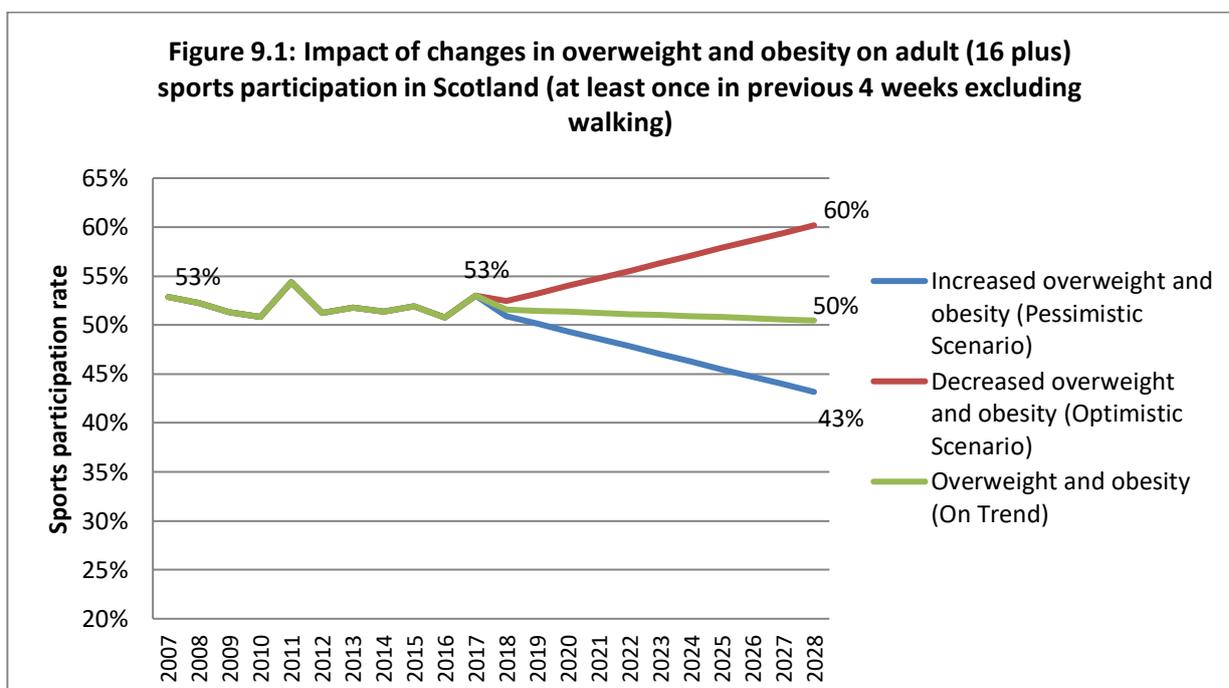
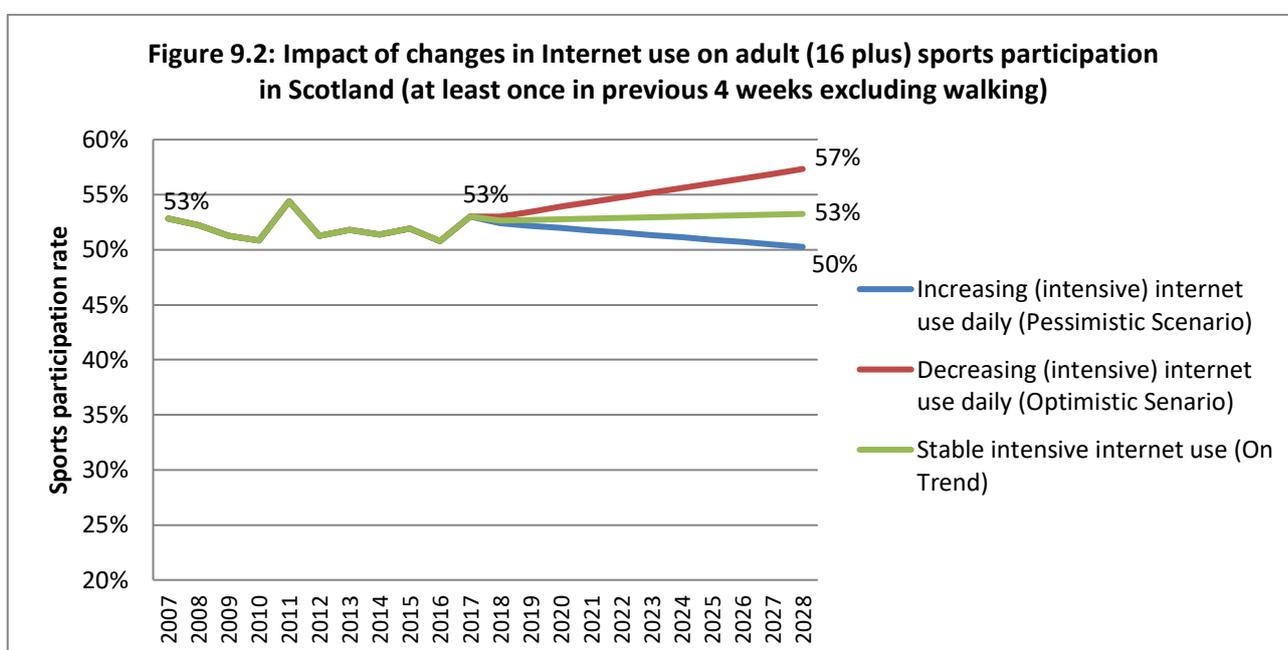


Figure 9.1 shows the extent of the impact of changes in levels of overweight and obesity on sports participation in Scotland are large. This one factor on its own will be likely to set the parameters around overall participation rates in sport for years to come. On current trends sports participation rates will be pushed down to 50% in 2028 from 53% in 2017. Effective intervention could give a 10 percentage point boost to participation taking it to 60% and the opposite is true in the Pessimistic Scenario where, with increasing overweight and obesity, participation rates could fall to as low as 43%. We are not saying that this is likely to happen, it is an extreme case - but it does provide an indication of the extent of the impact if it did. Of course, sports participation could itself be a significant contributor to addressing the obesity and overweight challenges - but on the negative side increasing overweight and obesity with associated decreases in participation in sport could have a negative and reinforcing downward spiral effect.

KD3: social media and technology - the distracted young



The key driver on social media and technology refers to 'the distracted young'. It was not possible to model children and young people's use of the internet and its impact on their sports participation in this research. As an alternative intensive (daily) internet use and adult participation was modelled - and this is shown in Figure 9.2. The trend appears to be benign based on these adult indicators. But any significant change to that trend could have a large impact on sports participation with a 7 percentage point range between the Optimistic and Pessimistic Scenarios.

KD6: socio-economic inequality

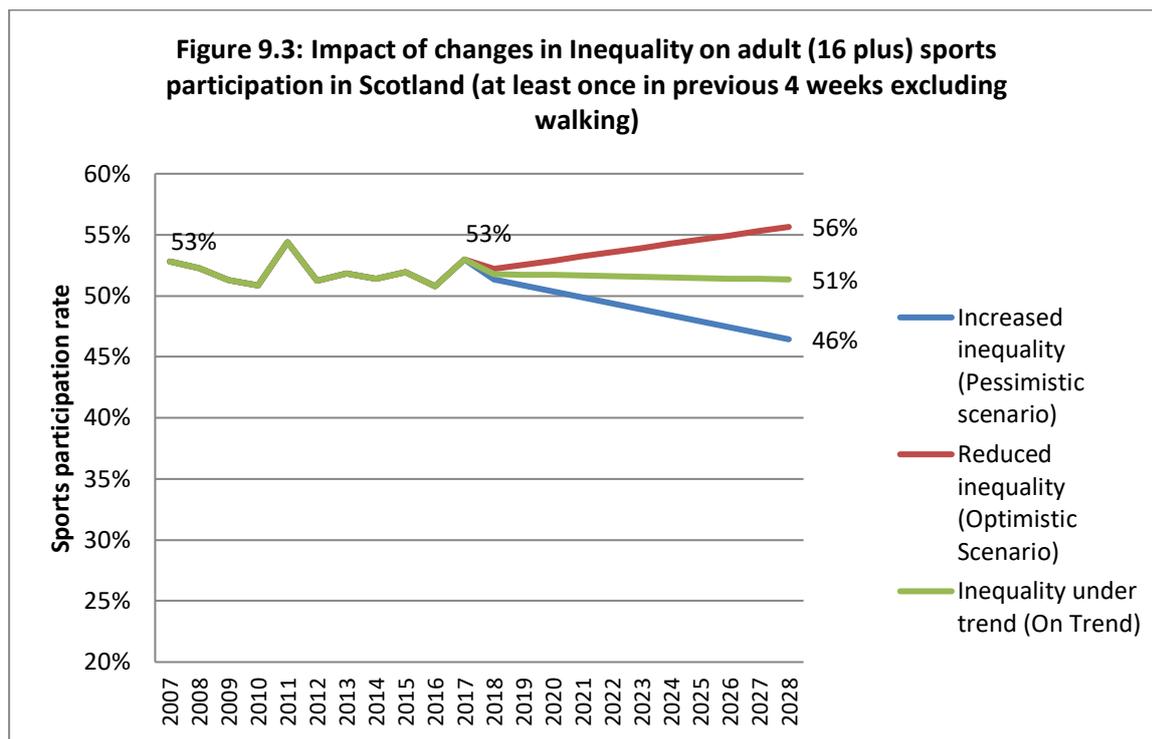
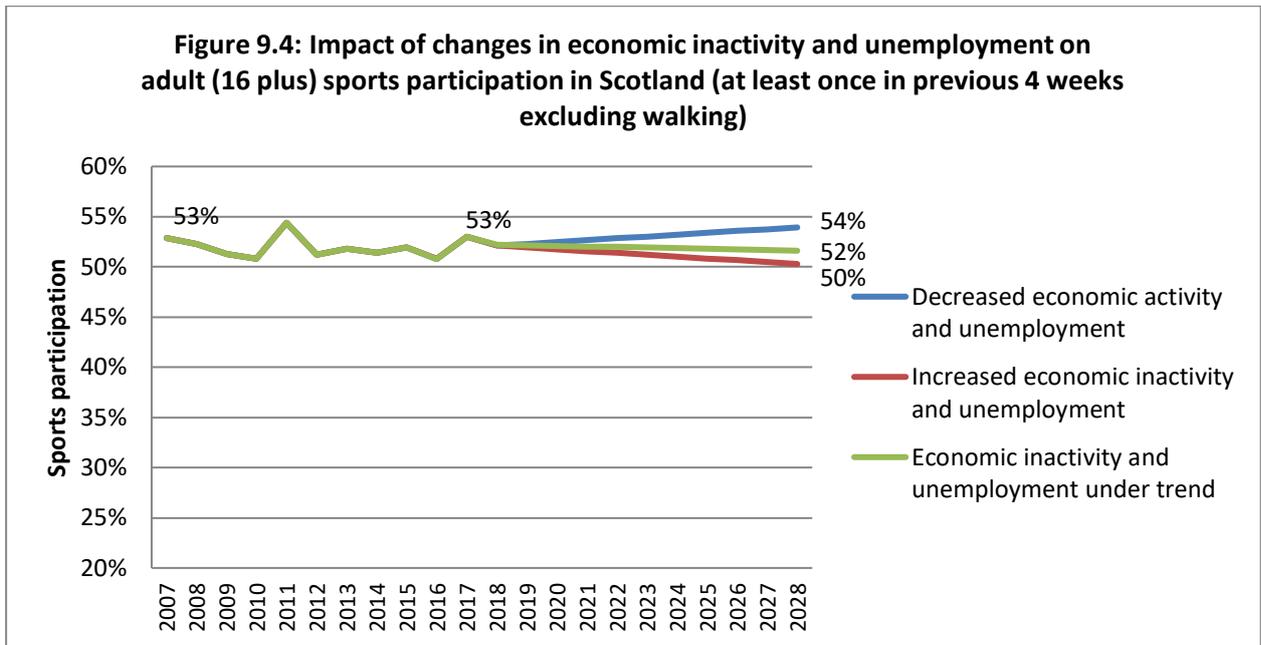


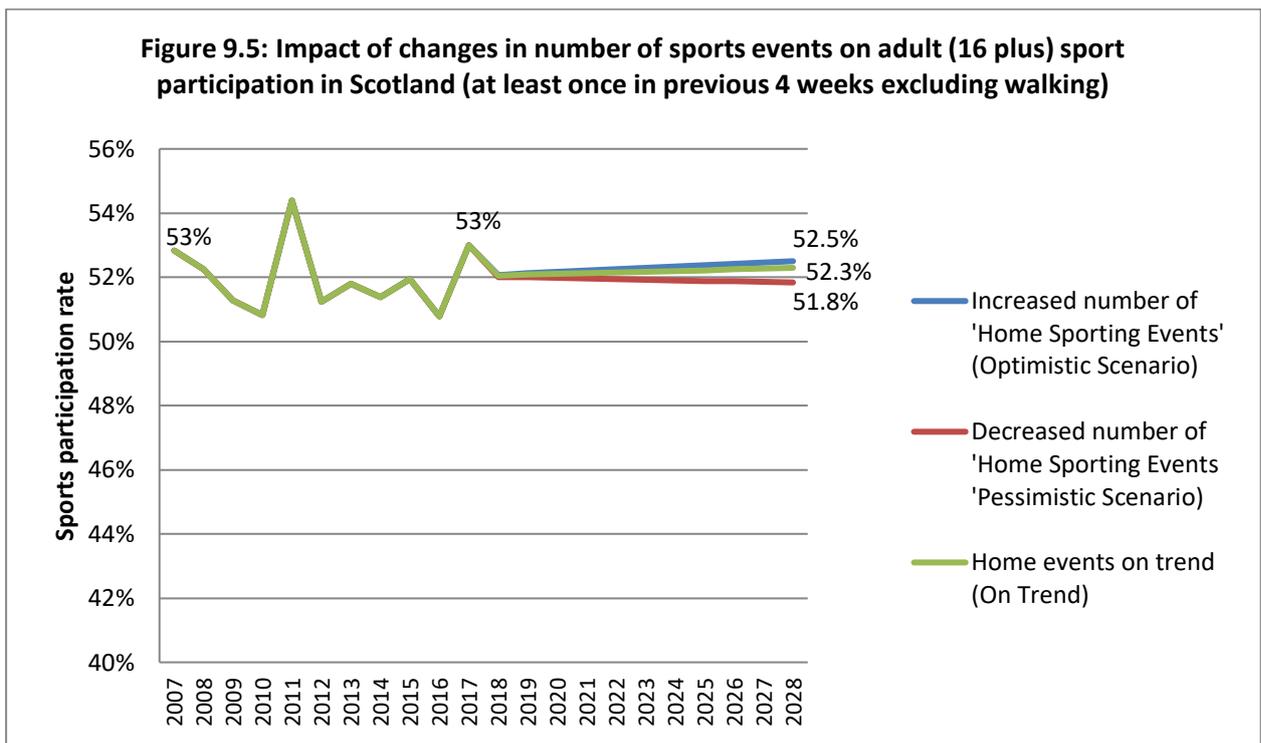
Figure 9.3 shows the impact of changes in levels of social inequality as measured by indicators of 'percentage of income deprived population according to SIMD', and the 'percentage of population in severe poverty'. As shown earlier the evidence on the relationship between levels of socio-economic inequality and sports participation are clear and proven. This modelling shows the extent of the possible influence of this driver with a 10 percentage point range in participation rates in sport between the Optimistic and Pessimistic Scenario for 2028 (from a possible high of 56% to a low of 46%).

KD8: structure of employment - the gig economy

The structure of employment and how this is changing has been identified as a key driver of sports participation. Finding direct measures that we could use to reflect what has been termed the 'gig economy' with changing conditions of work including, for example, increases in zero hours contracts has been difficult. The measures used in the modelling were levels of unemployment and levels of 'economic inactivity' in the population. Figure 9.4 shows the outcomes with the range of participation rates from 54% to 50% being less than for the other key drivers reported so far but still an association that has some meaning and impact.

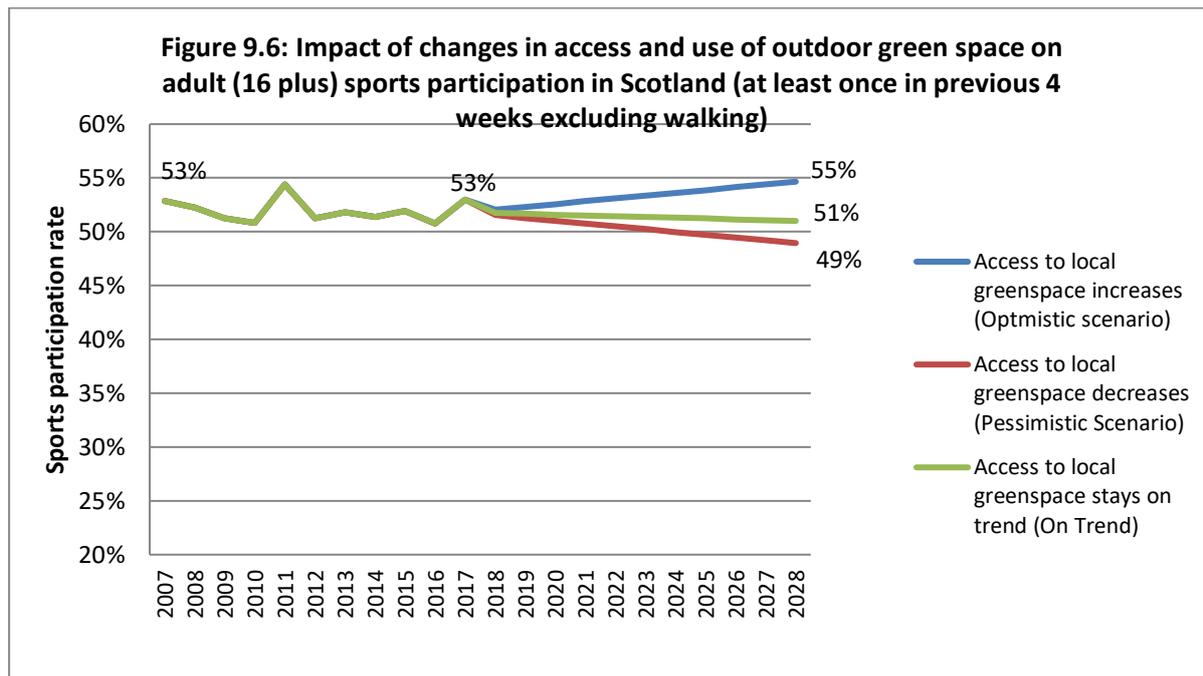


KD11: the major event impact and elite sport 'trickle down'



The relationship between investment in sporting events and participation in sport (the 'sports legacy') has been a feature of public policy for a number of years although the evidence to support this link is at best equivocal. Figure 9.5 shows the association found between participation in sport and the number of major sports events held in Scotland. The impact has been assessed based on a one-year time lag between the event and levels of participation. Modelling shows some association between the two, but the impact is small and likely to be of little significance to Scottish community sport over the next 10 years.

KD13: access to open space and countryside -low density rural versus high density urban



It is reasonable to assume that increasing opportunities to access green open space near where you live would be associated with increased participation rates in sport. Figure 9.6 shows that this association is supported by the modelling and that the difference between an Optimistic and Pessimistic Scenario is 6 percentage points with the trend situation pulling participation down slightly from current levels.

Overall results of the modelling

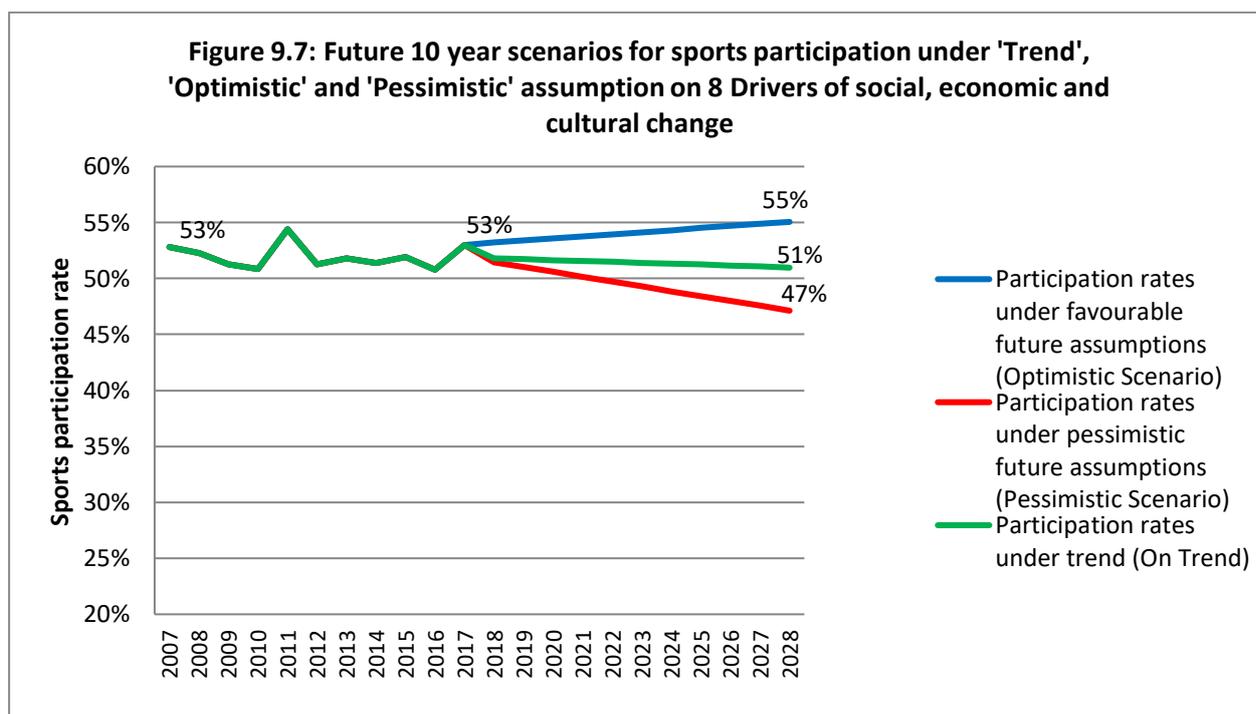


Figure 9.7 shows an overall 'Total Model' of sports participation in Scotland that combines the modelling of the associations for each of the 8 key drivers into one composite model. The 'Total Model' again includes projections based On Trend (a combination of all the On Trend assumptions) Optimistic Scenario (combining all the 'best case' assumptions) and Pessimistic Scenarios (combining all the 'worst case' scenarios). The outcome shows a range of 8 percentage points difference in sports participation over the next 10 years from a possible high of 55% to a low of 47% with a projected trend of 51% which is two percentage points below the existing (2017) rate.

Findings

- On current trends in overweight and obesity in the population sports participation rates in Scotland will be pushed down to 50% by 2028 from 53% in 2017. Effective intervention could give a 10 percentage point boost to participation taking it to 60% and the opposite is true in the Pessimistic Scenario where, with increasing overweight and obesity, participation rates could fall to as low as 43%.
- The key driver on social media and technology refers to 'the distracted young'. It was not possible to model children and young people's use of the internet and its impact on their sports participation for this research. As an alternative, intensive (daily) internet use and adult participation was modelled - and the trend appears to be benign based on these adult indicators. But any significant change to that trend could have a large impact on sports participation with a 7 percentage point range between the Optimistic and Pessimistic Scenarios.
- Modelling shows the extent of the possible influence of the key driver on socio-economic inequality with a 10 percentage point range in participation rates in sport between the Optimistic and Pessimistic Scenarios for 2028 (from a possible high of 56% to a low of 46%).
- Modelling shows some association between investment in sporting events and sports participation, but the impact is small and likely to be of little significance to Scottish community sport over the next 10 years.
- An overall 'Total Model' of sports participation in Scotland that combines the modelling of the associations for each of the 8 key drivers into one composite model shows a range of 8 percentage points difference in sports participation projected over the next 10 years to 2028 from a possible high (Optimistic Scenario) of 55% to a low (Pessimistic Scenario) of 47% with a trend projection of 51%.

Concluding comments

The modelling and analysis presented is exploratory and innovative and it is important to acknowledge the limitations. The modelling is dealing with associations and not direct cause and effect and sometimes they are weak - but always bound by a theoretical underpinning. Due to data limitations the modelling has

omitted many aspects of life in Scotland that will also impact on sport and are not accounted for - this includes some of our identified key drivers such as levels of austerity. But the value of such an exploratory approach to Scotland's sporting future is justified at a number of levels. In particular, it raises consciousness about the interdependencies sport has with wider social, economic and cultural trends in society. Public policies outside of sport impact on many aspects of people's lives in ways that have direct and indirect consequences for sport and the possible extent of these is shown dramatically in the analysis. Sports policy must, therefore, be framed in this context and must understand where it is impacted by wider social trends and where it can impact on them and the likely mechanisms in both instances.

Results from the modelling that are of interest are the potential impact of increasing rates of overweight and obesity which are shown starkly in the modelling projections. This is an example of a two-way relationship where sports participation can impact positively to reduce overweight and obesity while increasing overweight and obesity can have a major negative impact on sports participation. Also, of interest is the assumption of a relationship between investment in sporting events and participation in sport (the 'sports legacy') which has been a feature of public policy over many years, but the modelling results show little potential impact from such interventions.

The aggregate results of the modelled projections over the next 10 years show a range of participation rates of 8 percentage points. Given that public policy in sport has greater ambitions it is not unreasonable to argue that it should be target an increase towards the upper end of the range modelled. Quite where that target should be set and Scotland's chances of achieving it will be dependent on strategic vision, political will and resource allocation, matters addressed in the final concluding section of this report.

Section 10

The future of community sport in Scotland - a public policy response

10.1 The challenges

This report has covered a lot of ground in seeking to better understand what sports participation in Scotland in 2017 looks like, where it has come from and what the prospects hold. Evidence has been presented on how sports participation trends overall have been static as have wider levels of physical activity across the Scottish population. Evidence has also shown how community sport in Scotland presents a 'divided nation' with structural inequalities and how these have persisted so that for example in 2017 more boys participate than girls, more men than women, more younger people than older people and more people from less deprived backgrounds and socio-economic advantage than those from more deprived circumstances.

The evidence has also demonstrated how, below the apparent surface calm of static participation rates, there are considerable undercurrents of change and turbulence in the sport system. These are reflected in, for example, signs of increasing drop-out amongst secondary school age children; stagnating and possibly declining participation rates amongst young adults; a shifting landscape from participation in more traditional organised sport towards growth in more informal fitness based activities; a growing polarisation between an 'active class' of frequent and multiple sports participants and a left behind 'unsporty and sedentary class' with all the associated consequences for deteriorating public health and wellbeing.

Exploratory qualitative and quantitative analysis of sports participation prospects in Scotland have painted a mixed picture. Stakeholders in Scottish sport are concerned about participation rates being negatively impacted by 'austerity', 'by levels of inequality', by overweight and obesity' and by trends in 'social media use and related technologies'. However, there is also a current of optimism that public policy can make a difference and that there are positive trends and opportunities for public policy associated with education, access to open space and cultural shifts in consciousness around health, nutrition and wellbeing. The quantitative modelling paints a picture of interdependences between sport and socio-economic and cultural drivers. It shows that the range of possible outcomes for sport is large with an 8 percentage point difference over 10 years (to 2028) between the most optimistic and most pessimistic scenarios. Although it might suggest that sport is a hostage to these drivers this conclusion would be a simplification and would not represent the full truth. Whether or not sport can change these drivers, or these drivers change sport is to

some extent to miss the point. The important message from this report is that sport policy in Scotland must engage with these drivers, examine how it can identify and take opportunities where they exist and build on, adapt or change its relationship with them where it can and needs to.

This report has focused on 'sports participation outcomes' as a necessary condition to deliver wider social, economic and cultural outcomes associated with 'sport for change'. It should perhaps go without saying that sport can only deliver on these wider ambitions of improved societal health, educational outcomes, crime reduction, economic value, social cohesion if it can do three things: a) increase its numbers i.e. its prevalence in the population; b) improve its reach into socially disadvantaged groups (who by definition have the poorest health status, educational outcomes, and exposure to risk of crime and anti-social behaviours); and c) improve the quality of the experience in ways that facilitate and maximise these beneficial outcomes.

Sports participation is a complex behavioural phenomenon and it would be naive to suggest that there are any 'simple answers' to the questions and challenges raised in this report. This research and the findings that have emerged from it has been carried out to shed new light on the state of community sport in Scotland. It has not been written in an accusatory way to lay blame on any particular stakeholders, but it does challenge them to critically examine current policy and practice.

Carrying out this research has demonstrated limitations in our knowledge and understanding. It has drawn upon the evidence available on patterns and national trends in participation in sport and physical activity, benchmarked against international indicators and in many ways, Scotland is well served in this regard. However, the gaps in the evidence and the insight it can support emerged quickly and frustratingly. One of the main research gaps identified is the need for a bespoke 'National Survey of Scotland's Sporting Life' to provide evidence that moves beyond the 'how many' of sports participation to the 'what', 'where' and most importantly 'why'. Filling this evidence gap can inform and help to shape a strategic vision of 'building sporting capital for all'⁴⁷ developing the competence, confidence and connections that empower people to participate in sport throughout their lives.

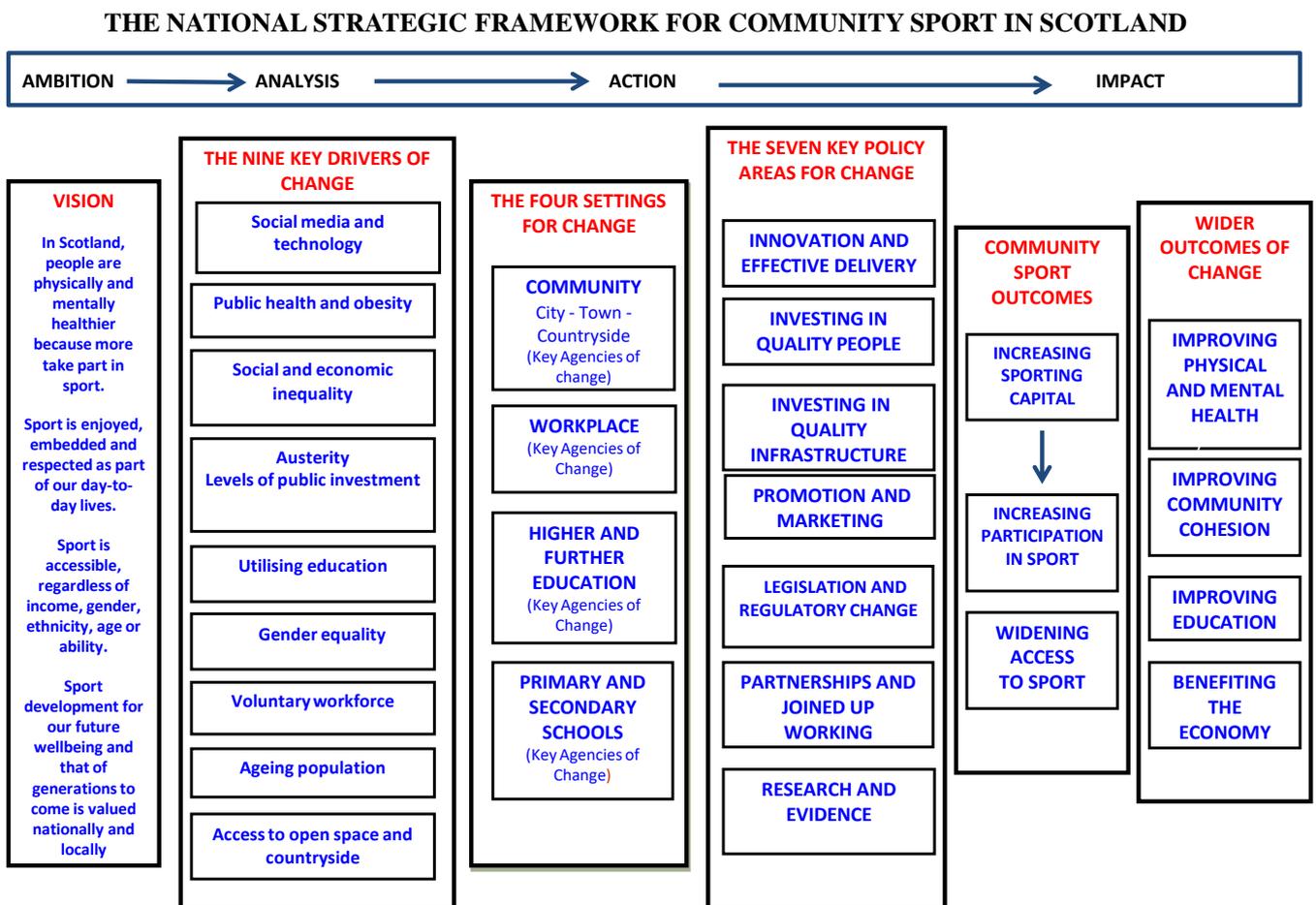
10.2 A possible strategic framework to facilitate debate

Some may argue that it is relatively easy to ask questions and very hard to come up with solutions. However, the contention here is that asking the right questions informed by the right evidence is a crucial starting point in a strategic process of change. This research has sought to address this through critical analysis of the national evidence available. However to assist in the strategic debate that needs to follow Figure 9.1 provides a suggested 'National Strategic Framework' through which critical self evaluation and policy

⁴⁷ See Rowe, N.F.,2018. *Sporting Capital: Transforming Sports Development Policy and Practice*, Abingdon, Routledge.

formulation could take place.⁴⁸ Applying this framework each stakeholder would: assess where they fit; check and challenge current policy and practice; assess the current and potential future contribution they could make to the outcomes and actions they need to take and in which settings; consider the partnerships they need to build; and critically examine and evidence the mechanisms for change that they need to understand and influence.

Figure 10.1 A proposed National Strategic Framework for community sport in Scotland



An important part of the framework referred to above is the concept (or model) of 'sporting capital'.⁴⁹ Sporting capital is similar in concept to 'human capital' and is defined as:

“The stock of physiological, social and psychological attributes and competencies that support and motivate an individual to participate in sport and to sustain that participation over time.”

⁴⁸ A similar Framework was developed by the author as part of the national strategy document 'The Framework for Sport in England' published in 2004. This is an adapted version updated to fit the current context and requirements in Scotland and incorporating the ideas relating to 'sporting capital'.

⁴⁹ See: Rowe, N., F., 2018. *Sporting capital: Transforming sports development policy and practice*. Abingdon, Routledge.

It has three main components or 'domains': Physical (health and basic movement skills); psychological (self esteem, self confidence, self efficacy and identity); social (friends, family, workmates play sport). These may be thought of as the three 'C's of 'competence', 'confidence' and 'connections'.

Someone with high levels of sporting capital is physically competent, confident in their abilities, comfortable in the settings where sport takes place, usually has sporty parents and siblings and mixes with people who are positive about sport. Someone with low levels of sporting capital is physically awkward, lacks confidence, often has poor body image finds sport and its settings intimidating and unpleasant and gravitates to social circles that don't participate or place high value on sport.

Important characteristics of sporting capital include:

- The higher levels of sporting capital the higher the probability of participating in sport - and sustaining participation through the life course.
- It can appreciate or depreciate. Good experiences increase it. Bad experiences decrease it.
- It is socially structured, men have higher levels than women, older people less than young people, upper social class groups more than lower social class groups.
- People with high levels of sporting capital are less affected by external barriers such as time limitations, cost and access - they are more resilient to things that might get in the way of their participation in sport.
- It is more durable than participation - people with high levels of sporting capital are more likely to come back to sport after a break than those with low levels and to transition to other sports as they get older.
- Through the 'transferability of capitals' it impacts on other 'capitals', social, human, cultural. Increased sporting capital contributes towards employability, health, wellbeing, quality of life.

A central proposition of sporting capital theory is that there is more to engaging and sustaining people's participation in sport than providing opportunity alone. The theory suggests that sporting capital is formulated at a young age and is part of a wider socialisation process that is passed on from generation to generation. It needs continued 'refreshment' into older age so that participation is maintained and enjoyed into later life. **The theory proposes that people with high levels of sporting capital are much more likely to take part in sport and sustain the participation over their life-course than people with low levels of sporting capital.**

It is suggested that underpinning the threats to participation in sport seen in this report is the possibility of a more fundamental decline in the levels of 'sporting capital' in Scotland. However, concern that levels of sporting capital in Scotland may be being eroded needs evidencing both in a national survey context and in terms of project impact evaluation.

10.3 Key questions for community sport policy and practice in Scotland

The research evidence presented in this report does not provide 'answers' or 'solutions' but it does help to formulate the 'right questions' that 'Scottish community sport' needs to address. The questions set out below are interrelated and often interdependent. Invariably one question sparks other subsidiary questions. Some of these are highlighted but many more will become evident through healthy and constructive debate.

Question 1: How does Scotland develop a strategic vision and framework to best develop community sport?

In many ways addressing this question sets the context for other questions that follow. Sports development policy and practice operating in a strategic vacuum will almost certainly result in fragmented and misplaced interventions with sub-optimal outcomes. 'Corporate plans' and 'Outcome Frameworks' are important but they are not a national strategic plan. A strategic plan requires: a long-term vision and short terms actions; to be connected to wider socio-economic and cultural drivers of sports participation; to be underpinned by a coherent theory of behaviour change; to be consistently understood and interpreted by all key players in the sports system who will know their respective strengths and weaknesses and the contribution they can make; and to be adequately resourced with financial profiles aligned to process and outcome priorities.

Question 2: Where should public policy in Scotland be focused and resources prioritised to best address inequalities in sports participation?

This may seem like an unnecessary question given that all publicly funded agencies and many others in the sport system profess to prioritise addressing social inequalities in sports participation and ways to overcome them. Yet it must be asked given the evidence in this report that shows that inequalities in sports participation have persisted over many years. The evidence suggests that Scotland is becoming an increasingly 'divided sport society' with the growth of an 'active class' and a left behind 'unsporty and inactive class' that make up a significant minority of the Scottish population. The question extends to a number of factors that include: better understanding of the complexities of social inequality that compound, for example, class with age, gender, ethnicity and disability; resource prioritisation; the design and targeting of interventions; and understanding the nature of behaviour change including attitude formation, motivation and relationship to constraints and barriers. This question also suggests a critical examination of current funding systems to establish who is most likely to benefit and why, and if there are unintended outcomes that subsidise those who least need public subsidies rather than reaching and making a difference to those who need them most. Any such analysis should occur both nationally and in local authorities across Scotland.

Question 3: What issues in children's and youth sport should public policy address in order to design the right interventions?

Public policy in Scotland is committed to improving children's and young people's participation in sport and their sporting experiences. However, there is evidence of decreasing participation rates in sport outside school lessons and high levels of drop-out by girls as they move into their teenage years. Is public policy showing enough innovative ideas and interventions to address these issues? Is Scottish sports development policy reliant on an outdated traditional model of 'sports club membership'? Related questions also emerge including whether public policy is adequately addressing the antecedents of drop-out such as possible decreases in levels of physical literacy amongst pre-school and primary school children? And do we understand the potential impact of increasing social media use and online gaming on young people's leisure time and long-term health?

Question 4: Where should public policy in sport focus attention in the ageing population to best meet the needs of older people?

Evidence presented in this report shows the steep drop-out in participation in sport with age in Scotland, in contrast to other European countries, where such drop-out is shown not to be inevitable. With Scotland facing an ageing population this issue will become more pronounced and of more concern. It raises the question of whether public policy in sport is giving this group enough priority. Like the issues around social inequality this has dimensions that include resources but also extend beyond this to better understanding this changing market, its needs, desires and motivations, and how sport can adapt and create innovative ways to engage this population and provide healthier lifestyles. Related to this is the need for greater comparative international research to better understand what differentiates the countries in Europe with low levels of drop-out with age from Scotland, and how much is culturally determined and how much a consequence of public policy and provision choices.

Question 5: What potential exists for the more traditional organised voluntary sport sector to work in partnership with the commercial fitness sector to their mutual benefit?

Evidence in this report shows that fitness activities are overtaking traditional forms of sport as the activity of choice for many in the population. This now extends to the younger adult age groups which historically have provided the foundation for more organised forms of sport. The concern here lies not in the increase in fitness activities but the substitution of fitness for other forms of community sport, as evidenced by static overall levels of participation. Countering this argument is evidence of a growing minority of more frequent and multi-sport participants suggesting an opportunity for 'cross over' with mutual benefits for both the more traditional voluntary sport club sector and the commercial fitness sector. If this is the case could these

two sectors work jointly to promote opportunities to mutual benefit? And are there lessons that the 'traditional organised sport sector' could learn from a more innovative private and commercial sector?

Question 6: What are the important gaps in research evidence available to sports policy and practice in Scotland?

Evidence-based policy and practice is the foundation for effective strategic planning and local delivery. To address this question requires a systematic review of the evidence available and the research gaps that exist. The analysis provided in this report might suggest that there is enough population level evidence to provide the foundation for effective strategic planning for sport in Scotland. In fact, this research has shown that not to be the case. To make sense of what is going on in community sport in Scotland and how public policy can influence it requires measures that extend beyond those currently collected on prevalence to capture the factors that relate to and impact on participation and how it is experienced. This empirical data includes but also extends from the 'what' and 'how many' to the 'why' and 'how' of participation to include the prevalence and development of sporting capital in the population. Through research with various sports stakeholders across Scotland, and comparison with practice in other European countries, OSS has identified the need for a '*National Survey of Scotland's Sporting Life*' to fill this important gap. Other research gaps identified by OSS include a 'Scottish Sports Innovation Exchange' evaluating and presenting innovative practice and an online 'Research Information Hub' that collates and makes sense of the research evidence of value to policy makers and practitioners. The research carried out in this report has identified other evidence gaps including: the number and characteristics of sports clubs and sports club members, and development of a national register to support such research; an exploration of the factors that underpin geographical variations in participation and the impact of public policy intervention; and the impact of social media on children's sporting behaviours and levels of physical activity.

Question 7: How does Scotland build its research capacity to support evidence-based policy and practice in community sport?

Although **sportscotland** invests in research and the Scottish Government in its Health Survey and Scottish Household Survey there are strong arguments to support a review of community sport research capacity, funding and organisation to address this question. Scotland has a tradition of providing high quality academic centres of excellence in sports research, particularly but not exclusively in the areas of sports science and public health. Does Scotland have the capacity and expertise to address the interdisciplinary challenges of community sport that require a collaborative and multi-disciplinary response? A review of existing academic centres of excellence could address this question as part of a feasibility study for establishing an independent and well-resourced 'collaborative centre of community sport research' within higher education.

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Annex 1

The main sources of national survey data on sports participation in Scotland

There are two main sources of national data on sports participation that have a degree of continuity and currency. These are the Scottish Household Survey (SHS) and the Scottish Health Survey (SHeS). Both surveys are commissioned and managed by the Scottish Government and are classified as 'National Statistics'. This requires them to meet quality assurance standards set out by the Office for National Statistics and the UK Statistics Authority⁵⁰. Designation can be interpreted to mean that 'statistics are trustworthy, good quality, and are valuable – that they measure the things that most need to be measured'.

Statistical Sources in the 'The Active Scotland Outcomes Framework'

Sport and physical activity indicators are part of a framework of measures used by the Scottish Government to assess national and societal wellbeing, incorporating a range of economic, social and environmental indicators and targets which are updated as data becomes available. Statistics from the SHS and SHeS are the primary source data to benchmark and measure performance and progress of the Scottish Government in achieving its stated priorities in the policy area referred to as 'The Active Scotland Outcomes Framework'⁵¹ which describes Scotland's ambitions for sport and physical activity. Active Scotland Outcomes contribute to the delivery of National Outcomes⁵² and ultimately to the Scottish Government's overarching purpose of creating a more successful country, with opportunities for all to flourish.

The Active Scotland Framework consists of the lead 'National Indicator' measuring overall physical activity levels of adults (those meeting the Chief Medical Officer's moderate to vigorous physical activity (MVPA) guidelines) with supporting indicators in 19 other areas. Eleven of the indicators are measured from questions included in the Scottish Household Survey and six from questions asked in the Scottish Health Survey. The Healthy Living Survey and Scottish Crime Survey provide one measure each.

The Scottish Household Survey

The Scottish Household Survey (SHS) is a continuous survey based on a random sample of the general population in private residences in Scotland. Questions are asked face-to-face by an interviewer in homes all over Scotland. Computer Assisted Personal Interviewing (CAPI) is used to collect the survey data. Its sample sizes are c9,000 to 10,000 per annum. It is a multi-purpose government survey with clients ranging across many Scottish Government departments.

⁵⁰ See: UK Statistics Authority, Code of Practice for Statistics: Ensuring official statistics serve the public, February 2018.

⁵¹ See: <http://www.gov.scot/About/Performance/scotPerforms/partnerstories/Outcomes-Framework>

⁵² See: <http://www.gov.scot/About/Performance/scotPerforms/outcome>

Adult Sport participation and related questions in the Scottish Household Survey

Adults

From 2007 the Scottish Household Survey included a small number of questions on sport participation in the core survey. During 2007 and 2008, a module of questions on culture and sport was added which contained more detailed questions on sport participation, motivations and barriers to sport, tuition, competition, club membership and volunteering activity related to sport. A report was published in December 2009⁵³ which contains analysis of this module of detailed questions, and "is intended to form a baseline against which we can assess the impact of national and local developments". However, only the core questions on sports participation have been included in surveys since 2007/8 making benchmark comparisons on the wider range of indicators not possible.

Core questions in the Scottish Household Survey which apply to adults aged 16 and over cover:

- **Participation in sport** - this asks which sports people have taken part in during the last 4 weeks and how frequently they have taken part (on how many days) in that period. Respondents are provided with a 'showcard' that lists 11 sports including walking (for at 30 minutes for recreational purposes); cycling (at least 30 minutes for recreational, health, training or competition purposes); and 'dance' (unspecified by type of dance). There is an 'other (please specify)' category that provides an additional 7 prompted sports by way of example. Following consultation, a recent review of the question content for 2018 to 2021 published by the Scottish Government⁵⁴ has decided to retain these questions unchanged.
- **Use of council services** - this asks how often respondents have used a range of council services in the last 12 months including reference to 'sport and leisure facilities' and 'parks and open spaces'. It then goes on to ask how satisfied or dissatisfied respondents are with those services.
- **Volunteering** - this asks which of any group's respondents have undertaken any work or given unpaid help to in the last 12 months and includes 'sport/exercise' (coaching or organising) on a showcard list.
- **Visits to the outdoors for leisure and recreation** - this asks respondents how often on average they have made visits to the outdoors for leisure and recreation in Scotland in the last 12 months.

The results for sport included in 'Scotland's People: Annual Report: 2016' provide statistics on sport participation (for that year and trends since 2007) broken down by a number of demographic groups; on use

⁵³ *People and Sport in Scotland: Results from the Scottish Household Survey Culture and Sport module 2007/2008*, Scottish Government, December 2009. (Can be accessed at: <http://www.gov.scot/Resource/Doc/296448/0092117.pdf>)

⁵⁴ See: <http://www.gov.scot/Resource/0052/00526586.pdf>

and satisfaction with council provided sport and leisure facilities; on frequency of visits made to the outdoors; and on levels of volunteering. Selected headline published results are provided later in this report.

Children and young people in the Scottish Household Survey

Questions on children's play have been included in the 2012, 2014 and 2016 surveys. If there are children aged between 6 to 12 years in the household the adult respondent is asked about the opportunities for children in the age group to play in their neighbourhood. Those households for which there is someone aged between 8 and 21 years are asked questions within the SHS on whether they take part in a series of activities regularly. These questions were included in the 2014 and 2016 surveys only.

The Scottish Health Survey

The Scottish Health Survey (SHeS) has been carried out annually since 2008 and prior to this was carried out in 1995, 1998, and 2003. The 2016 survey was the twelfth in the series. Commissioned by the Scottish Government Health Directorates, the series provides regular information on aspects of the public's health and factors related to health which cannot be obtained from other sources. The SHeS series was designed to:

- estimate the prevalence of particular health conditions in Scotland
- estimate the prevalence of certain risk factors associated with these health conditions and to document the pattern of related health behaviours
- look at differences between regions and between subgroups of the population in the extent of their having these particular health conditions or risk factors, and to make comparisons with other national statistics for Scotland and England
- monitor trends in the population's health over time
- make a major contribution to monitoring progress towards health targets

In 2016, across all sample types, interviews were held in 3,339 households with 4,323 adults (aged 16 and over), and 1561 children (aged 0-15)⁵⁵. Two further samples were selected for the survey in 2016: a child boost sample (4,181 addresses) in which up to two children in a household were eligible to be interviewed but adults were not, a Health Board boost sample (946 addresses) for those Health Boards which opted to boost the number of adults interviewed in their area.

Interviewing was conducted using a combination of Computer Assisted Interviewing (CAI), where the questionnaire answers are input directly to a laptop, and self-completed paper questionnaires. Adults (aged 16 and over) and children aged 13-15 completed the interview themselves. Parents of children aged 0-12 completed the interview on behalf of their child.

⁵⁵ See: <http://www.gov.scot/Resource/0052/00525486.pdf> for the 2016 survey Technical Report

Physical activity and sport measures in the Scottish Health Survey

The SHeS questionnaire asks about four main types of physical activity:

- home-based activities (housework, gardening, building work and DIY)
- walking
- sports and exercise
- activity at work.

Information is collected on the:

- time spent being active
- intensity of the activities undertaken
- frequency with which activities are performed

Recent (2016 and 2017) Scottish Health Survey questionnaires have included questions on the reasons (motivations) for doing sport; the reasons 'why you haven't done any/more sport' (i.e. the barriers and constraints) and the places where sport and physical activity have taken place).

Children were asked to provide information on the average duration of sports and exercise activities for a typical weekday and typical weekend day. They were not asked to differentiate between different weekday or weekend days or to provide a specific duration for each separate day. Since 2008, children at school have also been asked about any active things they have done as part of lessons (using the same format of questions as for all other activity types).

Sources of national longitudinal survey data on sports participation in Scotland

The above two surveys provide the primary statistical sources for national data on sport participation and physical activity. However, there are other sources of data that although they provide more limited measures of sport and physical activity do provide a longitudinal research design that follows the same individuals over time. These sources are under-utilised and include:

Growing Up in Scotland survey. This is a large-scale longitudinal social survey which follows the lives of groups of Scottish children from infancy through to their teens and provides important new information on their lives and their families in Scotland. The survey aims to contribute to the Scottish Government's strategy for the monitoring and evaluation of its policies for children, with a specific focus on the early years, where a significant gap in the evidence base has been detected. It is important to emphasise that this survey has a specific Scottish focus.

The survey seeks both to describe the characteristics, circumstances and experiences of children in their early years (and their parents) and to generate a better understanding of how children's start in life can

shape their long-term prospects. The survey design involved recruiting an initial total of 8,000 parents in 2005, comprising two sub-cohorts of children (5,000 from birth and 3,000 from age two). There have been eighteen editions of the survey, spanning the period 2005-2018 (the last one under process). The Survey captures several variables on 'activities with others' - including participation in educational, social or recreational activities at home and elsewhere, and visits to places or events, watching TV and videos, child's involvement in physical activity. However, the specific sport content is limited. Detailed information about the survey can be found on the Growing Up in Scotland web site⁵⁶. A specific study of physical activity levels of 10 to 11-year olds from the Growing up in Scotland sample surveyed in 2015/16 and published in January 2018 showed significant numbers not meeting the Chief Medical Officer guideline levels and boys more active than girls.⁵⁷

The UK Time Use Survey (UKTUS)⁵⁸. This a household survey that provides data on how people aged 8 years and over in the UK spend their time. Data are collected through a time diary instrument where respondents record their daily activities. All individuals who completed a time diary were invited to take part in an interview, and someone in the household was selected to take part in a household interview. The survey has been conducted twice in 2014-15 and in 2000-01. Questions about enjoyment of time were added to the UKTUS 2014-15 diary. Topics of interest relate to leisure activities, quality of life, and physical fitness and exercise. Out of a total 11,421 individuals in the latest survey around 7% can be attributed to Scotland, equivalent to 799 people.

⁵⁶ See: <https://growingupinScotland.org.uk/about-gus/>

⁵⁷ See: <https://bmjopen.bmj.com/content/bmjopen/8/1/e018369.full.pdf>

⁵⁸ Gershuny, J., Sullivan, O. (2017). *United Kingdom Time Use Survey, 2014-2015*. Centre for Time Use Research, University of Oxford. [data collection]. UK Data Service. SN: 8128, <http://doi.org/10.5255/UKDA-SN-8128-1>

Annex 2

The 'Future Gazing' response instrument

Observatory for Sport in Scotland

The future for community sport in Scotland (the next 10 - 20 years). What are the key social, economic and cultural influences (drivers) of sport participation trends, the future prospects for Scottish sport and the implications for public policy?

Future Gazing: Expert Opinion

Set out below are a number of possible 'drivers' that may impact on community sport participation in Scotland over the next 10 to 20 years. You are asked to rate these drivers on a number of 'probability' and 'impact' criteria (see table below). You are asked to make these assessments based on your current knowledge and experience of working in sports development. They are your opinions and judgments and there are no right or wrong answers.

By way of context please indicate which of the following would best describe your role/ experience in the community sport system.

Working at national policy level	<input type="checkbox"/>
Working in academia	<input type="checkbox"/>
Working at a local strategic level	<input type="checkbox"/>
Working in local project or programme delivery	<input type="checkbox"/>

Other specify-----

Rate each driver on the criteria referenced below as follows:

- a) the likely direction of the impact (up or down): Score on a scale of -5 to +5 with minus 5 an extremely negative impact, 0 a neutral impact, and plus 5 an extremely positive impact
- b) the probability of the impact: Score 1 to 5 with 1 not very probable to 5 highly probable
- c) the likely scale of the impact: Score 1 to 5 with 1 very limited impact to 5 a very high impact
- d) the incidence of impact (who in the population will it impact on the most?) Write in e.g. no one group or groups; young people; older people; women; the least affluent; ethnic minorities; people with a disability; people living in deprived urban areas; rural communities; the current sports participants; potential new participants; particular types of engagement - e.g. organised or informal or by type of sport
- e) the ability of public policy intervention to impact on this driver in a positive way: from 1 little if any ability to impact to 5 a very strong ability to impact with the right focus and resource

Drivers	a) the likely direction of the impact (up or down) Score: -5 to +5	b) the probability of the impact Score: 1 to 5	c) the likely severity of the impact Score: 1 to 5	d) the incidence of impact (who in the population it will impact on) Write in	e) the ability of public policy intervention to impact on this driver in a positive way Score: 1 to 5
a) changes in age structure - ageing population will lead to a decline in participation? Net 'in-migration' may drive participation up with younger more mobile population? Consider the potential generation effect. Will increasing number of retired living longer increase participation? Will young people today follow the same trajectory as their parents or do less or more sport?					
b) gender and sport - societal shift or more of the same. Will longstanding gender differences in participation be sustained or are we on the threshold of a significant societal shift as women gain greater equality in the workplace and in other aspects of their lives? Are the structural shifts towards more informal and fitness based' activities likely to have a disproportionate effect on women's participation? Is Scotland likely to track the experience of Scandinavian countries where women have higher participation rates in sport than men. Or are such changes not on the foreseeable horizon?					
c) social media and technology- the distracted young. Is there a discernible trend towards lower participation rates (outside school) amongst the young? Can this be associated with technology/ social media use and extension as a mass phenomenon? Is this likely to grow as a negative factor or are there potential counter- balancing trends that may make technology a motivator for participation?.					
d) health status/overweight/ obesity. Are the trends in numbers obese and overweight likely to increase or perhaps to stabilise? Could they even come down? Is overweight/ obesity likely to be a driver of participation behaviours or a consequence of it? What are the likely demographics around this - and what are the potential consequences? Will fashion and cultural references to body image increase its potentially negative impact on self confidence and self efficacy - or will society start to shift its values, perceptions and associations in a more positive and confidence building direction?					
e) socio-economic inequality. Trends are towards growing inequality and an increasing gap between wealthy top 20 percentile and					

<p>poor bottom 20 percentile? Are these trends likely to continue? What are potential consequences for participation? Also impact of geography on multiple deprivation. Sport participation disproportionately lower for poorest groups living in multiple deprivation areas. Will public policy be able to shift these trends? Is the relationship between sport participation and social class inevitable? Is it all about resources or is there something more fundamental about value systems?</p>					
<p>f) structure of employment - the gig economy. What have been the trends in employment/unemployment? What does the future hold? Does the increasing insecurity of employment/unusual working hours/ low pay/ demands for flexibility impact on sport participation (positively or negatively)? Are the days of the 'philanthropic employer' with corporate facilities and social clubs a thing of the past or is a resurgence in social responsibility and recognition of the 'economics' of a fit and healthy workforce likely to drive corporate interest in sport and healthy lifestyles?</p>					
<p>g) 'new age' fitness and health. There is a fashionable trend towards health and fitness lifestyles amongst a substantial minority. This is linked to gym membership and changing lifestyle in for example diet and use of supplements etc. these trends overlap with growing levels of inequality. Are they sufficient for a 'sport participation boost' in their own right or do they just magnify inequality with an elite 'super group' of healthy and fit and a large 'underclass' of left behind sedentary and unhealthy?</p>					
<p>h) access to open space and countryside -low density rural versus high density urban. What are the internal migration trends in Scotland? Do those living in rural areas get an 'open space environmental boost' not made up by built infrastructure available to urban dwellers? Or does living in isolated communities in rural areas mean less access to built facilities and poorer infrastructure and access issues? Is this likely to be a growing or decreasing problem.</p>					
<p>i) provision - austerity in public investment. Are the impact of policies on austerity likely to still manifest themselves or are we now through the worst and on new age of public investment (or something in-between)? Is there likely to be a decline in use of indoor facilities? Is the stock ageing/ becoming outdated? Have charges gone up to aid cost recovery? Is 'sports development' in local authorities as we use to know it a thing of the past? Is the future one of inevitable slow</p>					

<p>decline in what we currently understand as the traditional infrastructure for community sport? Will the private sector step up to the plate? Will new models of social enterprise, co-operatives emerge? Is there any innovation on the horizon that may support a resurgence in community sport activity?</p>					
<p>j) volunteers - the bedrock of community sport. Is volunteering as we currently understand it a thing of the past? Are we asking too much of our volunteers? Are they likely to be a decreasing 'force' and if so, is it possible for the 'market' to replace them? Or perhaps we are starting a new wave of community engagement/ community spirit as people look for meaning in their lives? Is there a possible generation effect with a potentially decreasing group of older volunteers taking on increasing burden until eventually the system will creak and fail? Or is the younger generation up for the challenge?</p>					
<p>k) the ability of sport to adapt and change to meet changing consumer preferences. Will sports need to modify their offer to meet changing consumer preferences? How flexible are they likely to be? Can more 'traditional sports' maintain their market share or is the shift to informal sport likely to continue? Are these changes in the structure of sports participation likely to be an opportunity or threat? Can 'physical activity' levels go up while sport participation decreases? Does this matter from a broader public policy perspective? Will traditional sports clubs see declining membership as people adopt more nomadic behaviours? Or will people react to a sense of increasing isolation and increasingly look for the social connections that sport can bring.</p>					
<p>l) the major event impact and elite sport 'trickle down'. Has there been any positive impact from major events in Scotland - for example the 2014 Commonwealth Games and the 2014 Ryder Cup? Will major events be likely to play an important part in driving participations in community sport in the future. Or will we see a growing 'reality gap' or disconnect where everyday sport and elite sport are seen as different non-transferable worlds? Could a growing cynicism about elite sport performance have an 'anti-role model' impact or will elite sports people continue to inspire - particularly the young?</p>					
<p>m) sport and education - what does the future for sport in schools hold? Will we see a shift towards competitive sport that favours the sporty kids or will school sport increasingly see its role as enabling and empowering the less</p>					

<p>able and sporty? Or is there no contradiction? Is the PE profession likely to strengthen in primary schools or will non specialists continue to be the norm? Will PE as a subject strengthen its position in the curriculum or be pushed out as demands for improved academic performance dominate? Will the school estate increasingly become available for community use or will inertia prevail, and facilities fail to keep up with consumer preferences? Will increases in the numbers in higher education support a growth in sport or has this peaked with more young people opting to go down a vocational route?</p>					
<p>n) Other possible driver (write in)</p>					
<p>o) Other possible driver (write in)</p>					
<p>p) Other possible driver (write in)</p>					

Annex 3

A note on modelling sports participation trends

Following the exploration of the major drivers affecting the long-term development of sport participation, we selected some key time series to demonstrate the trends in participation.

The dependent variable is sports participation at least once in four weeks excluding walking. This is one of the major participation indicators published throughout from 2007 to 2017. The values of participation rates are derived from the surveys but can also be verified from publications of Scottish statistics.

A problem with interpreting the trend in the above participation rate is that it has changed very little over the examined period 2007-2017, starting and finishing at 53%. Because of that, it is the variation within the period in relation to the key variables that can be more informative in terms of future trends.

Although all key drivers were examined only the following had some important meaningful results.

- Age/gender
- Technology/internet use
- Health
- Inequality
- Employment
- Open spaces
- Education
- Events

Detail examination was restricted by the limited amount of observations (11) which were only sufficient for an indicative examination of trends that hint towards possible associations with sport participation. In each case we have a trend, a favourable and a pessimistic scenario.

To understand the methodology used consider the key variable 'health' as expressed through the percentage of overweight people and the percentage of obesity among adults (using Scottish health survey data). The steps we take are the following:

1. Establish the data series 2007-2017 in sport participation, percentage of overweight and percentage of obese adult population.
2. Construct the linear trend in the health indicators (overweight and obese) over the period 2018-2028. This trend corresponds to an 11-year period based on the previous 11 years of data.
3. Construct a linear regression model of sports participation on the health indices for the period 2007-2017. This model would approximate associations between sport participation and the percentages of overweight and obese people in the adult population.
4. Using the above model, we forecast the 'trend' case of sport participation over the period 2018-2028. Under the trend, sport participation decreased from 53% in 2017 to 50% in 2018. Note that this is the trend in association with the health variables and not an extrapolation of the sport participation trend over time. As such we can isolate the effect of the health variables upon future changes in sports participation.
5. We conclude that under current trends in overweight and obese population, sport participation is likely to decrease by 3% over the next 11 years.

6. Table 2 presents the optimistic scenario where the health indicators create a favourable environment for sport participation. Assuming a single percentage point decrease in the overweight and obese variables annually, we examine what is likely to happen if the percentage of obesity reduces to 15% and the percentage of overweight people to 54% by 2028. As the graph next to Table 2 shows, the trend participation becomes strongly positive, reaching 60% by the year 2028.
7. Note that this analysis cannot say if the change in sports participation would affect the health condition or if the health condition affects sport participation. Most likely there would be an interaction in both directions, so we can only speak at this stage of an indication of associations among the examined variables (we cannot test for significant results).
8. The inverse pessimistic scenario is examined in Table 1. Assuming an increase of the overweight and obese people from 65% and 26% to 76% and 37% correspondingly, sport participation is forecast to decline from 53% to 43% over the period 2017-2028. Under this case the already negative basic trend of Table 3 deteriorates even further.
9. Overall the analysis suggests that aiming for reduced rates of overweight and obesity should have some positive association with sport participation and vice versa.

A similar methodology can be used across the suggested key indicators. One exception is technology where the trend of internet use was adjusted to stay under the 100% ceiling.

The models overall indicated that

1. Sport participation would benefit greatly from increased participation rates among youth and among females.
2. Intense levels of internet use have a negative association with sport participation.
3. Decreasing levels of obesity and overweight people would have a positive association with sport participation.
4. Similarly, sport participation would benefit from:
 - Reduced social inequality;
 - Reduced unemployment and economic inactivity
 - More access to open spaces
 - Better education results
 - And more sporting home events.

Note that the sporting events are examined with one-year lag, meaning that a home event in 2007 would be associated with sport participation in 2008 etc.

An overall model of sport participation has also been constructed under the totality of optimistic and pessimistic scenarios.

Without any policy intervention, the participation rate is likely to decline slightly to 51% (by 2018).

Under the optimistic scenario, or as a result of policy intervention, the overall sport participation rate can consistently increase to 55%. The inversion of trends in the pessimistic case would show an overall decline of sports participation to 47%.

Variables used and data sources:

Dependent participation variable:

- Any sporting participation (excluding walking)- four weeks.

Data source: surveys

Age:

- Percentage of 16-25 years old participating at least once in four weeks, excluding walking
- Percentage of 26-35 years old participating at least once in four weeks, excluding walking
- Percentage of 66-75 years old participating at least once in four weeks, excluding walking
- Percentage of females participating at least once in four weeks, excluding walking

Data are taken directly from the surveys.

Technology:

- Percentage of adults (16+ Great Britain) using internet almost daily
- Percentage of households with internet access (GB)

Data source: ONS- Internet access, households and individuals (sheets 1 and 4)

<https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/bulletins/internetaccesshouseholdsandindividuals/2017/relateddata>

Health

- Percentage of overweight adults, Scotland
- Percentage of obese adults, Scotland

Data Sources: Scottish Government, Scottish Health Survey

<https://www.gov.scot/binaries/content/documents/govscot/publications/statistics-publication/2016/12/obesity-indicators-monitoring-progress-prevention-obesity-route-map-december-2016/documents/00511096-pdf/00511096-pdf/govscot%3Adocument>

<https://www.gov.scot/binaries/content/documents/govscot/publications/statistics-publication/2018/09/scottish-health-survey-2017-volume-1-main-report/documents/scottish-health-survey-2017-main-report/scottish-health-survey-2017-main-report/govscot%3Adocument>

Inequality

- Percentage of income deprived population according to SIMD, Scotland
- Percentage of population in severe poverty, Scotland

Data sources:

<https://www2.gov.scot/Topics/Statistics/Browse/Social-Welfare/IncomePoverty/povertytable>

Table 1

<https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/2011-based-special-area-population-estimates/population-estimates-by-simd-2016>

Employment:

- Percentage of unemployed (adults), Scotland

- Percentage of economic inactivity (adults), Scotland

Data Source: Labour Force Survey, ONS

<https://www2.gov.scot/Topics/Statistics/Browse/Labour-Market/LMTrends/TandC>

then Table 8.

Outdoors

- Percentage of adults that visit urban outdoor areas at least once a week, Urban Scotland
- Percentage of adults living less than 5 minutes walk to nearest green space.

Data source: Greenspace use and attitudes survey, 2017.

http://www.greenflagaward.org.uk/media/1209/greenspace-survey-2017-final-report_021017.pdf

Then, chart 2 ad chart 4

Education

- Percentage of adults in Scotland with a degree education
- Percentage of adults in Scotland with a-level or HND education (highest qualification)
- Percentage of adults in Scotland with no qualification

Data sources: Databases

A further table was prepared with data for 16-25 years old

- Percentage of 16-25 years old participating in sport at least once in four weeks, excluding walking (dependent variable)
- **sportscotland's** investment in Active Schools (£m)

Data sources: Databases; **sportscotland's** Annual Reports (various years)

Events

- Number of home events 'last year' (Scotland)

Data Source: SIRC database for home events

Assumptions in the modelling

Indicators	On Trend Scenario			Pessimistic Scenario		Optimistic Scenario	
	2017	2018	2028	2017	2028	2017	2028
Social media and Technology							
Percentage of adults (16+ Great Britain) using internet almost daily	80%	80.3%	83.5%	81%	90.4%	79%	69%
Percentage of households with internet access (GB)	90%	90%	94%	90.4%	94.4%	90%	90%
Health - Overweight and Obesity							
Percentage of overweight adults, Scotland	65%	65%	66%	66%	76%	64%	54%
Percentage of obese adults, Scotland	26%	26%	28%	27%	37%	25%	15%
Inequality							
Percentage of income deprived population according to SIMD, Scotland	12%	11.8%	10.3%	12.5%	17.5%	11.3%	4.3%
Percentage of population in severe poverty, Scotland	13%	13.1%	14%	14%	24%	12.3%	5.3%
Employment							
Percentage of unemployed (adults), Scotland	8.4%	8.6%	10.1%	8.3%	13.3%	8.3%	3.3%
Percentage of economic inactivity (adults), Scotland	21.2%	21.4%	22.9%	21.6%	26.6%	21.6%	16.6%
Open space and Outdoors							
Percentage of adults that visit urban outdoor areas at least once a week, Urban Scotland	43%	42%	32%	42%	27%	45%	60%
Percentage of adults living less than 5 minutes walk to nearest green space	44%	43%	37%	43%	28%	46%	61%
Education*							
Percentage of adults in Scotland with a degree education	30	32.9%	42%	32.7%	39.7%	31%	40%
Percentage of adults in Scotland with a-level or HND education (highest qualification)	16	15.6%	12%	18%	38%	15%	5%
Percentage of adults in Scotland with no qualification	28	27.2%	29%	26%	16%	29.5%	44.5%
Events							
Number of home events 'last year' (Scotland) (Index)	11.0	12.2	24.2	10.1	1.1	13.2	35.2

Annex 4

Observatory for Sport in Scotland (OSS) Research Portfolio

Title	Why do we need this research?	Estimated cost
<p>A comparative international study testing the theoretical ideas of ‘Sporting Capital’ and the role it can play to increase sustained participation in sport and bring wider social, economic and health benefits to Scotland.</p>	<p>Despite years of significant public policy priority and investment participation rates in sport in Scotland are stagnating and for some groups declining. There is a strong argument to suggest that sports development policy and practice has been held back in its effectiveness because it has lacked a coherent theoretical foundation for its interventions.</p> <p>Sporting Capital is the sporting equivalent of ‘human capital’. It is: <i>“The stock of physical, social and psychological attributes and competencies that support and motivate an individual to participate in sport and to sustain that participation over time”</i>. Public policy intervention can build Sporting Capital if delivered in the right way to the right people at the right time. A focus on building Sporting Capital is more likely to be effective in achieving public policy goals of increased sustained participation in sport than a focus on participation per se.</p> <p>If that sounds a bit esoteric, in fact it is not. The nub is: that there is already evidence that the higher the level of Sporting Capital the greater the probability someone will participate regularly in sport; and the lower the level the greater the probability of sedentary behaviour and drop-out. But this theory needs testing on the ground and ideally with international comparators. Hence this project.</p>	<p>£120,000 to £240,000</p> <p>Pilot project at £20,000</p>
<p>A new 'National Survey of Scotland's Sporting Life'</p>	<p>High quality national statistics are fundamental as a foundation for policy and practice and this applies as much to sport as it does to every other area of public interest and investment.</p> <p>OSS is working with international partners and survey method experts in the UK to develop a proposal for a major Scottish Survey focused on community sport. Currently one does not exist. This would take the form of a tri-annual survey in sports participation and the factors that impact on the decision to take part at different points in the course of life. The survey will be focused on the ‘how, why, where and what for’ of participation including improved understanding of the relationship between motivation, barriers, quality of experience and the socio-cultural context.</p> <p>Only this kind of insight - informed by a sound theoretical framework that links sport behaviour change to the factors that drive it - can help shape public policy intervention in ways that are timely, relevant and have a chance of success. A new 'National Survey of Scotland's Sporting Life' fills this important gap in our evidence base.</p> <p>OSS has developed and had priced an outline specification for the work. So, we have a realistic estimate for what we would be expecting in terms of cost.</p>	<p>£220,000</p>

Community use of school sports facilities in Scotland: realising the potential

Evidence is needed to galvanise national and local politicians and public policy practitioners to unlock the potential of school facilities for community use. This is not a new issue - but in an economic environment of austerity it has become an even more pressing one for which solutions must be found.

£40,000

This research will highlight the extent to which these resources are under-utilised and explore models of current good practice and potential innovative approaches drawing on the best international experience.

The benefits to the school, its pupils and to the community will be explored and where possible quantified. Practical guidance and tools will be produced that help communities, schools and volunteers optimise the use of facilities in their areas

The economic and social value of sport in Scotland: quantifying the benefits, understanding the impact and modelling the future

In a world of austerity and competing priorities for public investment it is important for sport to be able to quantify value in a monetary framework but to do so within a model that recognises and values its wider individual and societal benefits. Standard models of 'the economic value of sport' seriously under-estimate its wider benefit to society.

£20,000

Some of these benefits such as 'happiness' are difficult (but not impossible) to quantify monetarily while others such as the financial impact of sport and physical activity on physical health are more easily quantified. But the benefits of sport go beyond this to impact on productivity, social care, psychological health, educational outcomes and community cohesion.

Scotland's lack of a holistic model that recognises and quantifies the wider benefits of sport to society undermines sports place as a priority for public investment that can fully justify itself even when taking a hard-nosed value for money approach.

Scottish Sports Innovation Exchange: Feasibility Study

Innovation in policy and practice in community sport is often claimed but in reality, rarely realised. Where it does occur, it is not well evidenced, the mechanisms and outcomes little understood and the learning not widely shared in any systematic way. Yet community sport faces growing challenges in the 21st century that threaten its place as a mainstream lifestyle choice.

£25,000

Many of these challenges are not new but often they are increasingly pervasive and intense. Some, such as developments in communication technology and social media are new and changing rapidly.

Understanding innovation, evaluating it, learning from it and driving new approaches is crucial to the future of community sport. Want to know what works why and where for community sport in Scotland? A 'Sports Innovation Exchange' will support all these things as a vital online resource for policy makers and practitioners looking 'to change the way they do things' and learn from the best.

	<p>This project will set up and test the feasibility of a new interactive online tool that could become a central resource for policy makers and practitioners in community sport.</p>	
<p>Local Government and sport in Scotland: A strategic overview of developments in the Scottish sporting and institutional landscape</p>	<p>Local government is the major player in delivering and planning provision of sporting opportunities for local communities in Scotland. Although there is a statutory duty to provide these services the level of investment is discretionary.</p> <p>Under pressures of austerity and cuts in funding, sport is often seen as low in the pecking order of priorities. But little is known on the extent to which these cuts have eroded the traditional and more progressive roles of local government in sports development. This extends to their impact on the broader priority given to sport within local authority policy and how, if at all, it is reflected in local authority strategic planning for sport.</p> <p>By combining statistical and financial information with the views of policy makers and practitioners this research is designed to throw light on these issues which are often clouded in political rhetoric and public policy 'smokescreens'.</p>	<p>£25,000</p>
<p>Sports Research Information Hub</p>	<p>Sources of data and research are multiplying at a rapid rate and yet our ability to navigate our way around these them is being undermined by this complexity and by concerns over trust, quality and reliability. This resource is not aimed at academics whose stock in trade is to find their way around information and research but at the time pressured policy makers and practitioners who need quick, accessible and easily interpreted sources that they can trust and that are useful to them in their day-to-day decision-making and strategic planning.</p> <p>With the opportunity to find relevant sources, to share them and to provide commentary and stimulate on-line debate this resource would be the 'go to site' for those involved in planning, delivering and administering sport in Scotland.</p> <p>There is currently no 'one stop shop' that provides this resource. The Sports Research Information Hub would become a valuable asset to help support the community sport sector in the recognition that good quality decisions are supported by good quality evidence - sensibly interpreted and understood.</p>	<p>£25,000</p>