Joint Strategic Needs Assessment

Physical Activity

Last updated: April 2016

Summary

- The direct costs of physical inactivity to Isle of Wight health and care services were estimated to be over £2.6m in 2010 alone.
- It is estimated that nearly 1,000 new cases of type 2 diabetes could have been prevented if all Isle of Wight adults were physically active in 2010 and over £1m savings could have been made in preventable cases of emergency admissions of patients with coronary heart disease.
- The proportion of physically inactive adults locally (33.2%) is significantly higher (worse) than the national average (22.7%).
- Less than one in five Year 6 (primary school) pupils are physically active and by Year 10 (secondary school) this significantly decreases to less than one in ten.
- Only 5.6% of Year 10 girls are physically active compared with 14% of boys.
- Isle of Wight adults participating in sport at least once a week has decreased from 2013/14 (31.2%) to 2014/15 (30.5%) which is significantly lower (worse) than the national average (35.8%).
- There were sharp falls in popularity of indoor sport and indoor swimming both on the Isle of Wight and nationally.
- To tackle the flat lining levels of sport participation and increasing levels of inactivity across the nation the cross-governmental strategy 'Sporting Future – a New Strategy for an Active Nation' was published in 2015.

Source: "Sporting Future – a new strategy for an active nation" *https://www.gov.uk/government/publications/sporting-future-a-new-strategy-for-an-active-nation*

Making the case for physical activity

Physical activity is described as any body movement produced by the skeletal muscles that expends energy and raises resting heart rate. Although sport is part of the picture, activity can also be more informal. Physical activity can include walking or cycling, and everyday activities such as household chores or gardening as well as organised sport and recreation.[1]

A wealth of evidence shows that being physically active is essential for both physical and mental health. Physical activity is central to a baby's normal growth and development. This continues through school, and into adulthood and older years. Being physically active can bring substantial benefits and there is consistent evidence of a dose-response relationship, i.e. the greater the volume of physical activity undertaken, the greater the health benefits that are obtained. [2]

Published jointly by the home nations' Chief Medical Officers in 2011 "Start Active, Stay Active" outlines the relationship between physical activity and general health benefits and the purpose of this report is to encourage all age groups to reach or exceed the current physical activity levels. [1]

UK Chief Medical Officers physical activity guidelines

Source: "Start Active, Stay Active", Sport England

This format was developed in line with global physical activity guidelines issued by the World Health Organisation. The guidelines differ for each age group because people have different needs at different stages of development. Pre-school children for instance need unstructured, energetic play to allow them to develop their fundamental movement skills to master their physical environment. By the time children reach school age they are developmentally ready to benefit from more intensive exercise.

The 2012 London Olympic and Paralympic games produced great success for home athletes and aimed to inspire a nation to get involved in sport

and support positive wellbeing and social development from shared national success.

The all party commission on physical activity and the government's London Olympics legacy report was published in 2014 "Moving More, Living More". The report reiterated the government's aim to increase the number of adults engaging in 30 minutes of physical activity a day and a year on year decrease in those who are physically inactive, defined as doing less than 30 minutes of exercise per week. [3]

"We are around 20% less active than in 1961. If current trends continue, we will be 35% less active by 2030. We have to turn a tide."
Everybody Active, Every Day [4]

Because much of the nation remains physically inactive, this presents a major public health issue. The Public Health framework for physical activity "Everybody Active, Every Day" was published in 2014 and outlined four key areas to support a pro-activity movement to cascade through society and enable better use of existing resources. [4]

Four areas of action to support a "pro-activity movement"

Source: "Everybody Active, Every Day", Sport England

The aim of this paper is to provide local needs assessment for the Isle of Wight using recognized measurements of physical activity with consideration of the four key opportunities for action outlined in the Public Health Outcome Framework "Everybody Active, Every Day" which is considered the most evidence informed framework for increasing physical activity.

[1] **Source: Start Active Stay Active**
https://www.gov.uk/government/publications/start-active-stay-active-a-report-on-physical-activity-from-the-four-home-countries-chief-medical-officers

[2] **Sport England**
https://www.sportengland.org/research/benefits-of-sport/health-and-benefits-of-sport/

[3] **Moving More, Living More**
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/279657/moving_living_more_inspired_2012.pdf

[4] **Everybody Active, Every Day**
https://www.gov.uk/government/publications/everybody-active-every-day-a-framework-to-embed-physical-activity-into-daily-life

Cost of physical inactivity

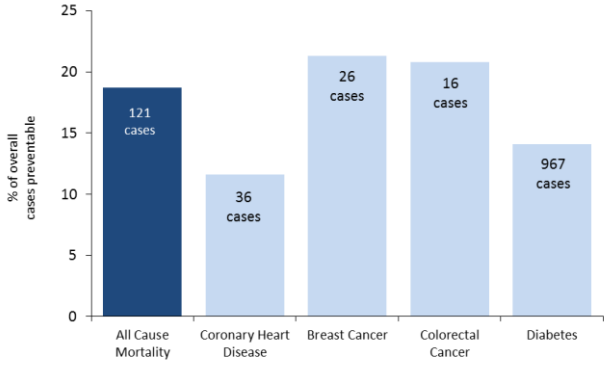
It is estimated that the direct and indirect cost of physical inactivity in the UK is **£20bn a Year**. Physical inactivity is the fourth leading cause of global mortality and many of the leading causes of ill-health are preventable by increased levels of exercise.[5]

The 'Health Impact of Physical Inactivity Model' estimates the amount of preventable disease within a population as a result of increased physical activity levels. An estimated 121 deaths could have been prevented on the Isle of Wight in 2010 if all residents were physically active as defined by the Department of Health guidelines (19% of all-cause mortalities on the Isle of Wight).

If all Isle of Wight residents were physically active it has been estimated that 36 preventable emergency admissions of coronary heart disease (12% of all cases) could have been prevented in 2010, 26 new cases of breast cancer (21% of all new cases), 16 new cases of colorectal cancer (21% of all new cases) and 967 preventable cases of diabetes (14% of all new cases).[6]

The bar chart below highlights the number of preventable diseases and deaths as a percentage of overall diseases and deaths on the Isle of Wight in 2010:

Preventable diseases and deaths among 40-79 year olds if all Isle of Wight residents were physically active



Source: Health Impact of Physical Inactivity Model 2010

In 2014 Sport England commissioned the British Heart Foundation Health Promotion Research Group to prepare estimate total costs of primary and secondary care attributed to physical inactivity for health and care systems across England. The estimated cost to the Isle of Wight was £2.6 million in 2010 and the four disease areas and costs are specified below: [7]

- £1m in the preventable cases of emergency admissions to hospital with coronary heart disease.
- Almost £600k in the treatment of diabetes.
- Almost £300k in the treatment of breast cancer patients.
- Almost £300k in the treatment of lower cancers.

The findings from the British Heart Foundation demonstrate that there is real economic value in decreasing physical inactivity on the Isle of Wight.

Other important disease areas were not included in these estimates including obesity, musculoskeletal health and mental health meaning the wider impact of physical inactivity on both the local economy and society is thought to be considerably higher.

[5] **British Heart Foundation: "Economic cost of physical inactivity"**
http://www.bhfactive.org.uk/userfiles/Documents/eonomiccosts.pdf

[6] **Health Impact of Physical Inactivity (HIPI) model**
http://www.apho.org.uk/resource/view.aspx?RID=123459

[7] **Sport England: Local Sport Profile Tool**
http://archive.sportengland.org/research/local_sport_profiles.aspx

Health deprivation and disability

The sub-domain of the latest Index of Multiple Deprivation (2015) "Health Deprivation and Disability" measures the risk of premature death and the impairment of quality of life through poor physical or mental health. [8]

Locally there are geographical differences in risk of poor health and disability based on Lower Super Output Area boundaries (LSOAs) with 7 Isle of Wight LSOAs amongst the 20% most deprived in England. The largest concentration of health and disability deprivation is in the West and Central localities with four of the seven lowest (worst) LSOAs in close proximity, as well as pockets in both North East and South localities.

The association between physical activity levels and leading a healthy life means that issues of cost, access and cultural barriers need to be tackled. People living in the least prosperous areas are twice as likely to be physically inactive as those living in more prosperous areas. [9]

[8] **Isle of Wight Council, Public Health team: Health Deprivation and Disability**
https://www.iwight.com/azservices/documents/2552-IMD-Health-domain-info-sheet-Oct-2015.pdf

[9] **Everybody Active, Every Day**
https://www.gov.uk/government/publications/everybody-active-every-day-a-framework-to-embed-physical-activity-into-daily-life

Physical activity measurements

Surveillance of physical activity behaviour is an important aspect of public health approach to promoting activity, helping to reduce obesity and improving the general wellbeing of the population. [10]

The two nationally accepted measures of physical activity used in this paper are the Health Survey for England (HSE) and the Active People Survey (APS) which use self-assessment questionnaires to measure total physical activity with data collected either by paper-based survey or over-the-phone. While there are some limitations to this data it is the best available for this topic.

[10] **Sport England: "Physical Activity Surveillance in England: What is measured and where are the gaps?"**
http://www.noo.org.uk/uploads/doc/vid_3953_noo_PhysicalActivity1_210909.pdf

Adult participation in physical activity

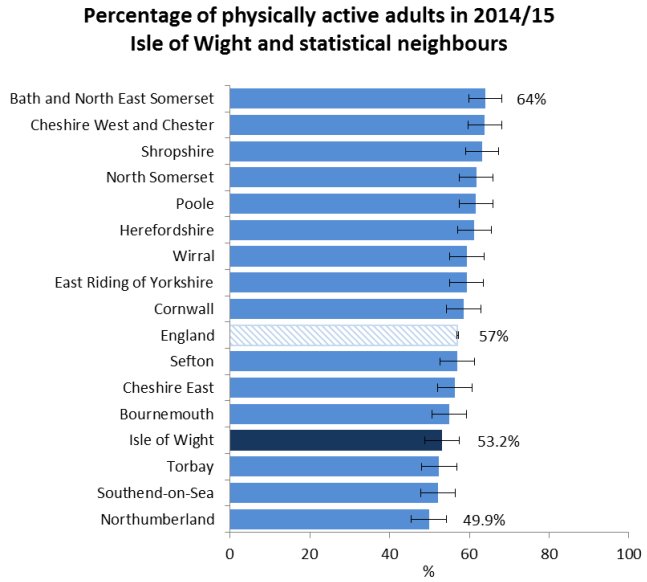
Findings from the 2012 Health Survey England (HSE) suggest 61% of adults (aged 19+) were deemed to be meeting recommended physical activity levels (66% of men and 56% of women).

Regional comparisons of the 2012 HSE show the highest proportion of both males (72%) and females (61%) who were physically active was in the South East of England. However regional comparisons alone can mask inequalities in smaller geographical boundaries and this would seem to be the case for adult physical activity participation rates on the Isle of Wight. [11]

The Active People Survey (APS) findings in 2014/15 suggest the percentage of physically active adults (aged 16+) on the Isle of Wight was 53.2% which is lower (worse) than the national

average (57%) however there is not a statistically significant difference between the totals.

The bar chart below shows the percentage of physically active adults on the Isle of Wight compared to the statistical neighbours and England.



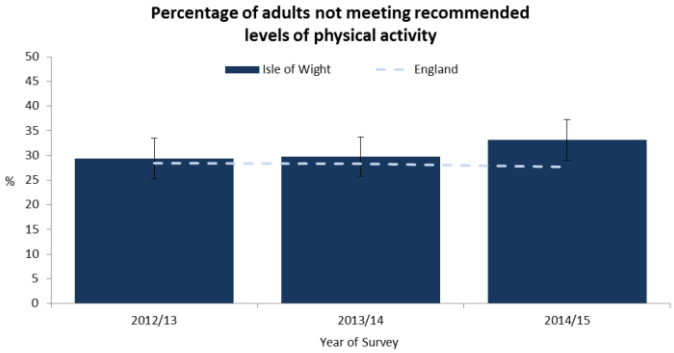
1. The underlying data used for this chart was taken from Active People Survey 9. The survey typically runs from October to October each year but APS 9 was October 2014 - September 2015.

Source: Active People Survey

There are gender inequalities in the percentage of physically active adults on the Isle of Wight according to the APS. In 2013/14 62% of males (aged 16+) were deemed physically active as opposed to only 50.3% of females. This is lower (worse) than the national average for both males (63.4%) and females (53.6%) however there is no statistically significant difference.

Unlike the national trend the percentage of physically inactive adults (less than 30 minutes of moderate to physical activity a week) on the Isle of Wight has increased from 29.4% in 2012/13 to 33.2% in 2014/15. Latest findings purport that the Isle of Wight has a statistically significantly higher (worse) percentage of physically inactive adults than the national average (27.7%).

The time trend below shows the percentage of physically inactive adults both locally and nationally.



1. Comparisons to Active People survey results before 2012/13 cannot be made when measuring physical activity levels due to changes in both data collection methods and a wider definition of physical activity.

2. The underlying data used for this chart was taken from Active People Surveys 7, 8 and 9. The survey typically runs from October to October each year but APS 9 was October 2014 - September 2015.

Source: Active people survey

In the past both action and funding has been targeted towards those that are already physically active, and whilst we need to ensure these groups are catered for and do not slip into inactivity, the biggest gains and the best value for public investment is found in addressing the people who are least active. [12]

[11] **Active People Survey: Interactive Tool**
http://activepeople.sportengland.org/

[12] **"Sporting Future – a new strategy for an active nation"**
https://www.gov.uk/government/publications/sporting-future-a-new-strategy-for-an-active-nation

Young people's participation in physical activity

Schools are a key influence on children's long term attitude to physical activity and have a huge impact on young people's emotional, physical and social development and wellbeing.

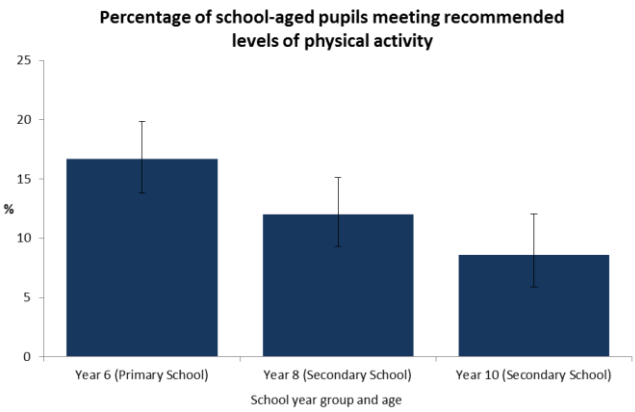
The 2015 Children and Young People's survey developed by the Isle of Wight Public Health team on behalf of the Children's Trust captured many aspects of local children's lifestyles including current physical activity levels.

Over 1,400 pupils from primary and secondary schools responded to the question "How many days last week did you exercise enough that you had to breathe harder and faster?" A response of "seven days within the week" has been assumed as meeting the Department of Health guidelines to be a physically active young person between the ages of five and 18 however duration of each bout of exercise was not specified in the survey.

Results from the survey indicate that Year 6 pupils are most likely to engage in moderate to physical activity seven days a week with 16.7% of respondents indicating that they currently live an active lifestyle, which is less than one in every five

pupils. 12% of Year 8 pupils reported being physically active every day last week and only 8.6% of Year 10 pupils which is **less than one in every ten pupils** who are potentially meeting recommended levels of physical activity. There is a statistically significant difference between the Year 6 and Year 10 percentage of physically active pupils. [13]

The bar chart below shows the percentage of physically active school-aged children on the Isle of Wight by year group.



Source: IOW Children and Young People's Survey 2015

Key life periods such as transition from primary to secondary school may contribute towards reductions in physical activity levels as it is recognized that behaviour change can occur as a result of dynamic interaction between an individual and their environment. [14]

"The statistic that should be keeping us awake at night is that between the ages of nine and 15, kids become 50% less physically active"

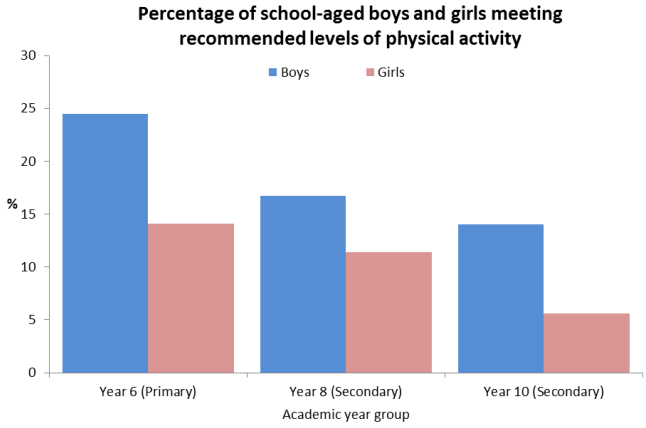
Lord Coe, former London Olympic ambassador and current president of the IAAF [15]

The 2012 HSE figures suggest that between the ages of eight to ten 26% of boys and 16% of girls are meeting recommended levels of physical activity nationally. Between the ages of 13 to 15 this falls to 14% of boys and 8% of girls nationally. This suggests that there are gender inequalities in physical activity participation and overall activity of school-aged children begins to decline from the age of ten.

The Isle of Wight Children and Young People's Survey results from 2015 suggest there could be similar inequalities in activity levels locally. The percentage of physically active boys decreases from 24.6% in Year 6 to 14.0% in Year 10 which is similar to the national average purported in the HSE.

The percentage of physically active girls decreased from 14.1% in Year 6 to 5.6% in Year 10 which is lower (worse) than the national average of 15 year olds suggested in the HSE.

The bar chart below shows the percentage of physically active school-aged children on the Isle of Wight by year group and gender.

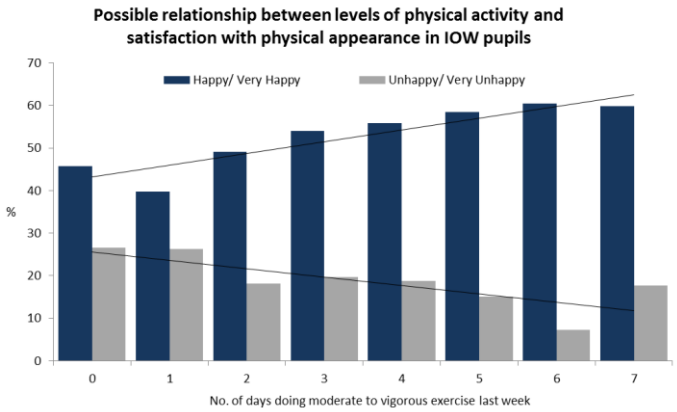


Source: IOW Children and Young People's Survey 2015

The prevalence of mental ill health in UK children is rising with approximately one in ten young people suffering from a diagnosable mental health disorder each year. The positive relationship between exercise and mental health is widely evidenced. [16]

The Isle of Wight Children and Young People Survey findings suggest there is a possible relationship between levels of physical activity and satisfaction with physical appearance amongst school-aged children on the Isle of Wight. On average Isle of Wight pupils partaking in no exercise are 15% less likely to be happy with their physical appearance than pupils exercising seven days a week.

The bar chart and linear trend line below shows that pupils engaging in more physical activity have a more positive (better) self-perception of their physical appearance.

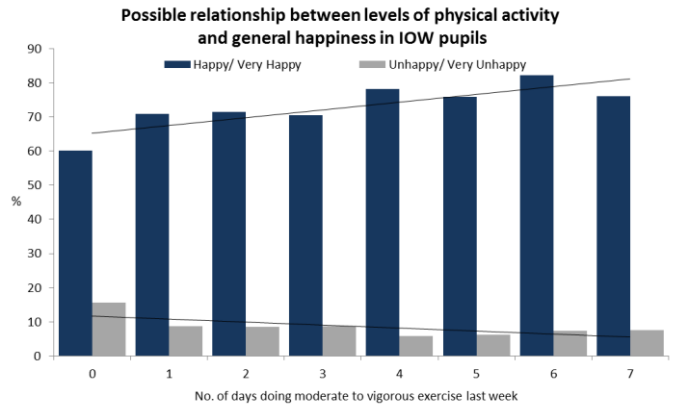


1 The underlying data relates to the survey results of year 6,8 and 10 pupils Isle of Wight Primary and Secondary School pupils.

Source: IOW Children and Young People's Survey 2015

Survey findings also suggest that there is a possible relationship between general happiness of Isle of Wight school-aged pupils and total activity levels. On average Isle of Wight school pupils partaking in no exercise are 16% less likely to be happy than pupils exercising seven days a week.

The bar chart with linear trend lines below shows that pupils who are engaging in more physical activity have a higher (better) self-esteem.



1 The underlying data relates to the survey results of year 6,8 and 10 pupils Isle of Wight Primary and Secondary School pupils.

Source: IOW Children and Young People's Survey 2015

This supports a growing body of evidence that indicates increasing physical activity levels among young people has the desired effect of developing both motor and cognitive skills with the positive effects of physical activity mediating through self-esteem and school satisfaction. [18]

Children spend a large part of their day at school which means there is huge potential for promoting physical activity in an educational environment. Maximising the potential to develop physical literacy and fitness in all pupils will be achieved with high quality physical education as well as integrating physical activity into academic learning through innovative programmes for schools such as EduMove. [18,19]

There is also much to be gained from families being active together. Active parents and other family members can influence children's participation in physical activity, and what the Active People Survey findings is suggesting is that Isle of Wight adults are less likely to engage in moderate and vigorous activity.

[13] **Isle of Wight Public Health Facts and Figures: Children and Young People's Survey 2015**
https://www.iwight.com/Council/OtherServices/Isle-of-Wight-Facts-and-Figures/Information-Factsheets-and-Figuresheets

[14] **Sport England: Psychological Health and Wellbeing Summary**
https://www.sportengland.org/media/3157/psychological_health_and_wellbeing_-_summary.pdf

[15] **"Lord Coe: I'm quitting to make sure Olympic legacy is delivered"**
http://www.theguardian.com/sport/2013/jul/19/lord-coe-quits-ambassador-olympic-legacy

[16] **A repeated measures experiment of green exercise to improve self-esteem in UK school children, K Reed et al (2013), Plos One**
Journals.plos.org/plosone/article?id=10.1371/journal.pone.0069176

[17] **The effectiveness of exercise as an intervention in the management of depression: systematic review and meta-regression analysis of randomised controlled trials. Lawlor, DA and Hopker , SW (2001), PubMed**
http://www.ncbi.nlm.nih.gov/pubmed/11282860

[18] **Physical Activity and Learning, Finish national board of education**
http://www.oph.fi/download/145366_physical_activity_and_learning.pdf

[19] **Edumove**
http://www.edumove.co.uk/

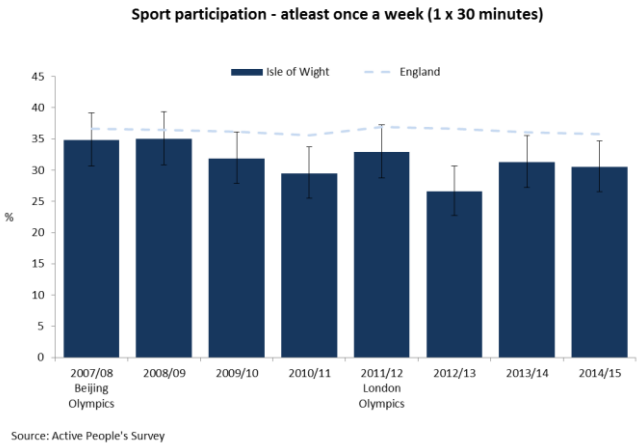
Sport participation

Boosting participation in sport can generate a variety of socio-economic benefits. Sport can, and does, make a profound and positive impact on individuals, communities and wider society. [21]

According to the Active People Survey the percentage of adults participating in sport once a week or more nationally has decreased from 36.1% in 2013/14 to 35.8% in 2014/15. Locally the percentage of adults participating in sport once or more a week decreased from 31.3% in 2013/14 to 30.5% in 2014/15. In 2014/15 the percentage of Isle of Wight adults participating in sport at least once a week or more was significantly lower (worse) than the national average.

The time trend below shows the percentage of adults (aged 16+) participating in sport at least

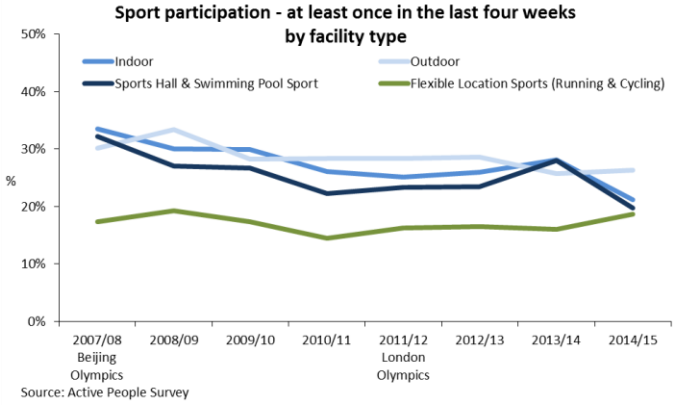
once a week both on the Isle of Wight and nationally.



Despite 2012 London Olympic legacy promising to increase long term participation in grassroots sports the overall fall in percentage of adults participating in sport both nationally and locally is being driven by a sharp fall in the number of people swimming and engaging in indoor sports. On the Isle of Wight the percentage of adults swimming at least once in the last 4 weeks at the time of survey interview fell sharply from 28% in 2013/14 to 20% in 2014/15.[22]

The drop in swimming participation both nationally and locally has masked smaller progress elsewhere in flexible location sports such as running and cycling which increased amongst Isle of Wight residents from 16% in 2013/14 to 19% in 2014/15.

The time trend below shows the percentage of Isle of Wight adults participating in sport at least once in the last four weeks by popularity of facility type.



This suggests the outdoor recreation sector could prove a valuable resource in boosting overall levels of physical activity. An example of this is the increase in mass participation events is the Medina park run which is a free weekly five kilometre run or walk. In 2011 the average turnout was 68 people but this has risen each year and as at 26 March 2016 the average turnout in 2016 was 241 people.

[21] **Sport England: Benefits of sport**
http://www.sportengland.org/research/benefits-of-sport/

[22] **Sport England: Decline in swimming**
https://www.sportengland.org/news-and-features/news/2015/june/11/further-decline-in-swimming-numbers-dominate-latest-sports-figures/

Active travel

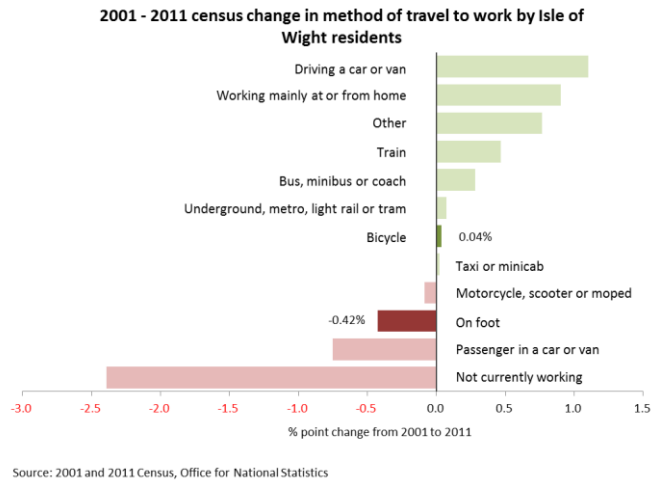
Given that transport is a necessity in everyday life whereas sport and leisure exercise can be difficult and costly to sustain long term health improvements encouraging active travel is considered to have an important role in sustaining higher levels of physical activity within communities.[23]

There is good epidemiological evidence that obesity rates are increasing in places where active travel (primarily walking and cycling for functional purposes rather than leisure) are declining.[24]

Preferred method of travel to work has been measured consistently in the England and Wales census both in 2001 and 2011. Isle of Wight figures show the percentage of people travelling to work on foot decreased by 0.4 percentage points from 9.9% in 2001 to 9.5% in 2011 but remains statistically significantly higher (better) than the national average of 6.3% in 2011. Isle of Wight residents cycling to work between 2001 and 2011 census remained largely the same with 1.8% of the population in 2011 which is in line with the national average of 1.9%. [25]

The figures also include those specified as “not currently working” which contributed 40.6% of the total respondents on the Isle of Wight in the 2011 census and had an impact on all other methods of transport.

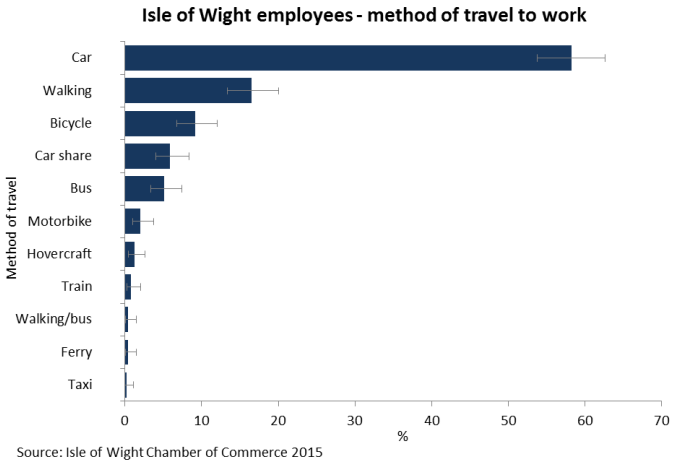
The horizontal bar chart below shows the percentage point change in work travel methods of Isle of Wight residents during both 2001 and 2011 census returns.



Source: 2001 and 2011 Census, Office for National Statistics

A more recent survey designed by the Isle of Wight Chamber of Commerce in 2015 asked employees from Isle of Wight businesses their preferred travel methods to work. This was to support the development of sustainable transport for employment as part of the latest Local Sustainable Transport Funding Programme (LSTFP).[26]

The percentage of respondents who stated they walk to work was 16.5% which is higher (better) than 15.9% of respondents walking to work in the 2011 census when discounting the results of those who were unemployed.



Source: Isle of Wight Chamber of Commerce 2015

[23] **What Are the Health Benefits of Active Travel? A Systematic Review of Trials and Cohort Studies, L Saunders et al (2013), Plos One**
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0069912

[24] **Improving health through policies that promote active travel: a review of evidence to support integrated health impact assessment, A de Nazelle et al (2011), Science Direct**
http://www.sciencedirect.com/science/article/pii/S0160412011000341

[25] **2001 and 2011 census – Method of Travel to Work in England and Wales Report**
http://webarchive.nationalarchives.gov.uk/20160105160709/http://www.ons.gov.uk/ons/rel/census/2011-census-analysis/method-of-travel-to-work-in-england-and-wales/art-method-of-travel-to-work.html

[26] **Isle of Wight Council – Local Sustainable Transport Funding (LSTF) Programme**
https://www.iwight.com/Residents/Environment-Planning-and-Waste/Planning-Policy-new/Transport-Policy/Local-Sustainable-Transport-Fund-Project

Physical activity initiatives

Below are some of the key physical activity initiatives on the Isle of Wight supporting the delivery of the Public Health overview "Everybody Active, Every Day".

'Isle be Active' – Isle of Wight Council, Sport Development Unit

'Isle be Active' is a three Year programme (2014-2017) funded by Sport England to deliver a diverse range of sporting and physical activity opportunities in the seven most deprived wards on the Isle of Wight. Isle be Active supports the active society notion by placing community sport activators in a position of change at a local level. The aim is to address the health inequalities gap and make physical activity accessible to less prosperous areas of the Isle of Wight. [27]

'New Leaves' at Bouldnor Forest – Hampshire and Isle of Wight Wildlife Trust

There is a ready-made network of professionals and volunteers who can help spread the word and make physical activity the norm. This needs to involve all sectors including education, sport and leisure, health and social care, planning, development and transport. School-aged children (aged four to 16) with additional needs can attend Forest School in Bouldnor Forest for 12 week periods. The aim is to extend the usual six week sessions for those children who would benefit

most from the additional time to improve social and behavioural skills in an outdoors environment. [28]

"It's all about the journey; transforming travel on the Isle of Wight" – Local Sustainable Transport Funding, Isle of Wight Council

People are more likely to be active if that is seen as 'normal'. Land use has a big impact on health and can encourage people to be active every day. The 2015/16 Local Sustainable Transport Funding Programme bid for the Isle of Wight hopes to significantly increase the levels of cycling and walking among all Isle of Wight residents by using an intensive and targeted approach to visitor experiences, Isle of Wight employers and education among young people. One of the key aspects will be unlocking new partnerships in order to deliver travel behaviour change. The programme also includes the delivery of the second phase of "Bicycle Island" and promoting the walking and cycling festivals on the Isle of Wight, ensuring they have a sustainable transport legacy for residents. [29]

Evidence shows that inactivity is an entrenched problem. Positive change needs to happen at every level and in every region. The overarching message is that it is not necessarily about new investments but maximising existing assets and thinking differently about how we commission and plan public services, with innovative approaches for distinct groups such as our inactive school-aged children, inactive adults and hard-to-reach groups. [30]

[27] **Isle Be Active - Isle of Wight Council**
https://www.iwight.com/council/OtherServices/Sports-Development-Unit/Get-Active1

[28] **New Leaves – Hampshire and Isle of Wight Wildlife Trust**
http://www.hiwwt.org.uk/New-Leaves

[29] **Local Sustainable Transport Funding Programme**
https://www.iwight.com/Residents/Environment-Planning-and-Waste/Planning-Policy-new/Transport-Policy/Local-Sustainable-Transport-Fund-Project

[30] **Everybody Active Every Day**
https://www.gov.uk/government/publications/everybody-active-every-day-a-framework-to-embed-physical-activity-into-daily-life