Physical Activity

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Topic author(s)	*Edward Brookes/ Anne Pridgeon*
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Executive summary

Introduction

Physical inactivity directly contributes to one in six deaths in the UK (Lee, I M 2012). Physical activity can prevent or help manage over 20 chronic conditions including type 2 diabetes mellitus, heart disease and some cancers (PHE, 2014). These conditions incur a huge cost to the health and wellbeing of the individual, the NHS and the wider economy (Department of Health, 2015).

Social, cultural and economic trends have removed physical activity from daily life (PHE, 2014). Technology dominates at home and work, the two places where we spend most of our time, encouraging us to sit for long periods of time. Over reliance on cars and other motorised transport is also a factor (PHE, 2014). The design of schools, public buildings and urban spaces prioritise convenience and speed ahead of walking or cycling (PHE, 2014). Being active every day is about incorporating activity into our daily lives: taking the opportunity for short trips on foot, by bicycle or on public transport, as well as doing whatever exercise, dance, leisure or sport we enjoy (PHE, 2014).

Around a quarter of adults in Nottinghamshire self report being inactive, failing to achieve a minimum of 30 minutes of activity a week. Approximately 60% of adults in Nottinghamshire self report meeting the recommended 150 minutes a week of physical activity. Participation in physical activity decreases with age and is higher in males than females. Residents in Rushcliffe are more likely to meet the physical activity guidelines

In most parts, this needs assessment takes a life course approach to physical activity. Due to the refresh of the Children and Young People's chapter in 2014, data relating children can be found at the following link. Future refreshes will take a full life course approach. Diet/nutrition and excess weight are considered in separate chapters.

Unmet need and gaps

Since the last JSNA refresh in 2012 there is an integrated Tier 1, 2 and 3 obesity prevention and weight management pathway in place. Over the next few years the service numbers accessing Tier 1 physical activity interventions will be monitored to provide information on uptake, service demand, outcomes achieved and ascertain if there are any unmet needs.

There is a need to maximise local assets as effectively as possible to promote physical activity within the resources that there are. This includes utilising the impact that the wider public health workforce, different professional groups and others are able to provide, particularly working with planning colleagues to ensure that the built and natural environment both supports and encourages physical activity.

Recommendations for consideration by commissioners

Recommendations		Lead
Strategy and integrated commissioning		
1.	Work with partners across the system to ensure there is no duplication or gaps in physical activity service provision targeting areas and groups whose physical activity levels are the poorest to maximise health outcomes, monitoring uptake by protected groups.	County Council/Public Health, District/Borough Councils and Clinical Commissioning Groups
Social marketing		
2.	An active lifestyle is promoted through Change4Life across Nottinghamshire Districts	County Council and District/Borough Councils
Public Health Intelligence and data improvement		
3.	Utilise data from the local Health Checks programme to provide information about physical activity levels and access to local services.	Public Health
Prevention		
4.	Ensure that physical activity remains a priority for the commissioning of services for 0-19 age group by the Integrated Children's Hub	Public Health (Children's Integrated Commissioning Hub)
5.	Continue to improve infrastructure and promote the uptake of walking and cycling, reducing reliance on cars.	Transport, County Council
6.	Develop closer working relationships between planners and public health professionals to ensure the opportunities that planning gives re-designs environments to encourage physical activity and an active lifestyle.	Planning and Public Health
Service quality and accessibility		
7.	Undertake an audit of progress locally against the NICE quality standards relating to physical activity, to benchmark and identify areas where improvements are needed.	Public Health
8.	Commission physical activity interventions that are evidence based and utilise the Standard Evaluation Framework for physical activity to evaluate.	Public Health and District/Borough Councils
9.	Continue to build the capability of the workforce to ensure that health and care professionals are clear about	Public Health

	promoting the benefits of physical activity so that they have healthy conversations (making every contact count) with their patients and service users providing evidence based messages.	
10.	Influence Primary Care Professionals to use the General Practice Physical Activity Questionnaire (GPPAQ) and utilise brief intervention and as appropriate signpost to physical activity opportunities.	NHS England/Clinical Commissioning Groups
11.	Within the first year of the new obesity prevention and weight management contract, agree the how the physical activity outcome will be measured and obtain baseline data to help inform performance targets for the following year.	Public Health

Full JSNA report

What do we know?

1) Who is at risk and why?

The term 'physical activity' describes any activity which causes the body to use more energy than it does at a resting level, as a result of movement (Caspersen et al, 1985). There are three different broad categories of physical activity, each requiring different levels of planning, commitment or time (Department of Health, 2011b):

- Daily activities – walking to work or school, gardening, manual work as part of employment etc.
- Active recreation – walking, cycling, dance, active play
- Sport

Physical activity helps to reduce the risk of many diseases including depression and anxiety, dementia, diabetes, stroke, and heart disease and need not be vigorous in order to have a noticeable beneficial effect (PHE, 2014). Increasing levels of activity not only benefits the individual's health but also has wider effects such as reducing pollution through reduced use of cars when they are replaced by active transport, increasing social interaction through group activities, and reducing costs to the NHS through reducing need for medical care (PHE, 2014). Physical activity and sport can also have positive impacts on an individual's educational attainment and development of social and communication skills, as well as increasing confidence, self-esteem helping with depression and dementia in later life and encouraging social integration (PHE, 2015; PHE, 2014).

The World Health Organisation (2015b) identifies lack of physical activity as one of the top ten leading risk factors for global mortality, causing an estimated 3.2 million deaths globally in 2008. In the UK inactivity is responsible for almost 17% of all premature deaths (British Heart Foundation, 2013), and around twice as many deaths can be attributed to inactivity as obesity (Medical Research Council, 2015).

Our society is becoming ever more sedentary, with office-based jobs increasingly become the norm, and leisure time spent in front on the television. Sedentary behaviour has been shown to increase risk of heart disease, high blood pressure, diabetes and obesity, and as more people do less activity, the risks of these illnesses increase (PHE, 2014).

Regular physical activity has health benefits throughout our lives, and everyone from toddlers to the elderly should be doing some physical activity (though the amount and type of recommended physical activity changes with age) (Department of Health, 2011). Regular physical activity in childhood has been shown to increase mental wellbeing, and academic achievement (PHE, 2015). In the elderly it can help with balance, coordination and reaction speed which in turn enable older people to maintain the ability to undertake activities of daily living. In all groups, physical activity decreases the risk of heart disease, stroke and obesity (PHE, 2014).

1.1) What is the impact of increasing physical activity levels?

Physical activity and health

Regular physical activity has been shown to reduce deaths by 30% (Department of Health, 2011b). The benefits of regular physical activity are well evidenced. For adults doing 30 minutes of at least moderate intensity physical activity on at least 5 days a week helps to prevent and manage over 20 chronic conditions including coronary heart disease and stroke. Lack of physical activity increases the risk of heart disease by 16-54%, breast cancer by around 33%, colon (bowel) cancer by around 32%, and type 2 diabetes by 20% (Lee et al, 2012). People who are inactive are likely to spend more time in hospital than those who are active.

There is a clear link between physical activity and obesity. Sedentary behaviour increases the likelihood that energy taken in in the form of food and drink is not used up by activity, and instead ends up being stored as fat. The proportion of overweight and obese adults who do not meet the guidelines for aerobic physical activity is much greater than for adults of a healthy weight (Scholes & Mindell, 2013). Aerobic activity is any physical activity which raises the heart rate and respiratory rate in order to provide more oxygen to the muscles – all types of physical activity involve using the muscles, and so increase aerobic activity. The amount of time spent in sedentary behaviour (i.e. time spent sitting down, inactive) also increase with BMI (Mitchell et al, 2013).

Physical activity and the economy:

As well as its impact on an individual's health, improving physical activity can also save money by significantly easing the burden of chronic disease on health and social care services, and enabling more people to work (PHE, 2014).

It has been estimated that costs to the NHS directly arising from insufficient physical activity levels are over £1 billion per year (Department of Health, 2011b). Physical inactivity typically accounts for 1.5-3% of direct healthcare costs (British Heart Foundation, 2013) in developed countries. Improved physical activity can help prevent falls in the older population, which currently cost the NHS and social services a combined total of around £1.8 billion per year (Department of Health, 2012). Indirect costs to the economy, arising from absenteeism, early death, and morbidity-associated costs are around £8 billion per year (Department of Health, 2012).

1.2) Who is at risk?

All groups are at risk from low levels of physical activity, but activity is especially low in older people, the disabled and certain ethnic groups (Cabinet Office, 2014).

Gender

Women are less likely to meet the recommended targets for physical activity, with 55% of women aged 16 and over meeting the guidelines for physical activity, compared to 67% of men. Similarly, only 24% of women met the guidelines for muscle-strengthening activity, compared to 34% of men. Physical activity is higher in men of all ages (HSCIC, 2014, (PHE, 2014).

Age

Children who are active are more likely to become active adults (PHE, 2014). The risks of physical activity in children are very low, and the benefits may be seen lifelong (UKactive, 2014a). Older people are less likely to meet the guidelines for physical activity. The association between age and inactivity gets stronger as people get older. The proportion of people who meet the recommendations for physical activity steadily decreases by around 5-10% each ten years until the 85+ age band where the proportion decreases precipitously. This is potentially due to the higher burden of disability in the elderly (a pattern that is almost the opposite of the pattern of physical activity, in that it steadily increases with age), as well as cultural norms of sedentary behaviour in the elderly. Let's Get Moving (2012) reported that 12% of adults aged over 65 are not able to walk outside on their own, 9% can't manage stairs, and 25% of women over 70 are unable to stand out of a chair without using their arms, due to poor leg strength (Department of Health, 2012).

Ethnicity

In the UK, people from the South Asian community are the least likely to do the recommended amount of physical activity, and all ethnic minority groups, apart from African-Caribbean, have low levels of participation in physical activity (PHE, 2014).

Disability

In the UK, as elsewhere in the world, people with disabilities are less likely to participate in physical activity, and therefore are at higher risk of the problems associated with a lack of physical activity. For some people this is related to the disability itself, a deficit in physical functionality leading to a lack of physical activity. For other people this is due to social or environmental barriers. They are physically able to do more activity, but there are no facilities available for them (PHE, 2014).

Statistics from the English Federation of Disability Sport (from Active People Survey 2014) show that 17.8% of disabled people in England take part in sport for 30 minutes once a week, compared to 39.2% of non-disabled people, with the difference between disabled and non-disabled people's participation most marked in younger age groups. 72.1% of disabled people take part in no physical activity, compared to 47.8% of non-disabled people. Levels of participation are lowest in people with sensory impairments.

Severe mental illness

The mortality rate among people with a severe mental illness aged 18-74 is three times higher than that of the general population (HSCIC, 2013) and on average die 15-20 years earlier than the general population with physical health problems tending to be the main factor (Brown, S., et.al; 2010). The prevalence of modifiable risk factors (including physical inactivity) which contribute to premature mortality is much more common in people with mental health problems. This increases with the severity of mental health condition (Department of Health, 2014)

Deprivation

Low income household groups are less likely to meet the recommended guidelines on physical activity levels than high-income household groups (PHE, 2013).

2) Size of the issue locally

2.1) Children and young people

The reader should refer back to the 'Excess weight in Children and Young People's' chapter (2014) for information relating to physical activity levels including travel mode to school. Future refreshes of this chapter will include updates on these.

2.2) Adults

The most frequently used assessment method for physical activity is self-report. Self-report methods rely on recalling activity from memory and may be subject to sources of random and systematic error. They are however useful for providing information on the type and context of physical activity. Despite these limitations, self-report tools remain the most cost effective option for population-level surveillance, and the most practical option for evaluation of physical activity interventions.

The Chief Medical Officers of England, Scotland, Northern Ireland and Wales published updated physical activity guidelines in 2011 (Department of Health, 2011). Table 1 provides information regarding the categories for physical activity for adults aged 19 – 64 years (HSCIC, 2013).

Table 1: Physical activity category descriptions for adults aged 19 – 64 years.

Categories	Descriptions
Meets recommendations	150 minutes moderate physical activity (in 10minute bouts or more) per week OR 75m of vigorous physical activity per week
Some activity	(60-149) minutes of moderate physical activity (in 10 minute bouts or more) per week OR (30-74) minutes of vigorous physical activity per week
Low activity	(30-59) minutes of moderate physical activity (in 10 minute bouts or more) per week OR (15-29) minutes of vigorous physical activity per week
Inactive	Less than 30 minutes of moderate physical activity OR less than 15m vigorous physical activity per week

Source: HSE2012 Chapter 2 Physical activity in adults

Two sets of data can currently be used to estimate physical activity in adults:

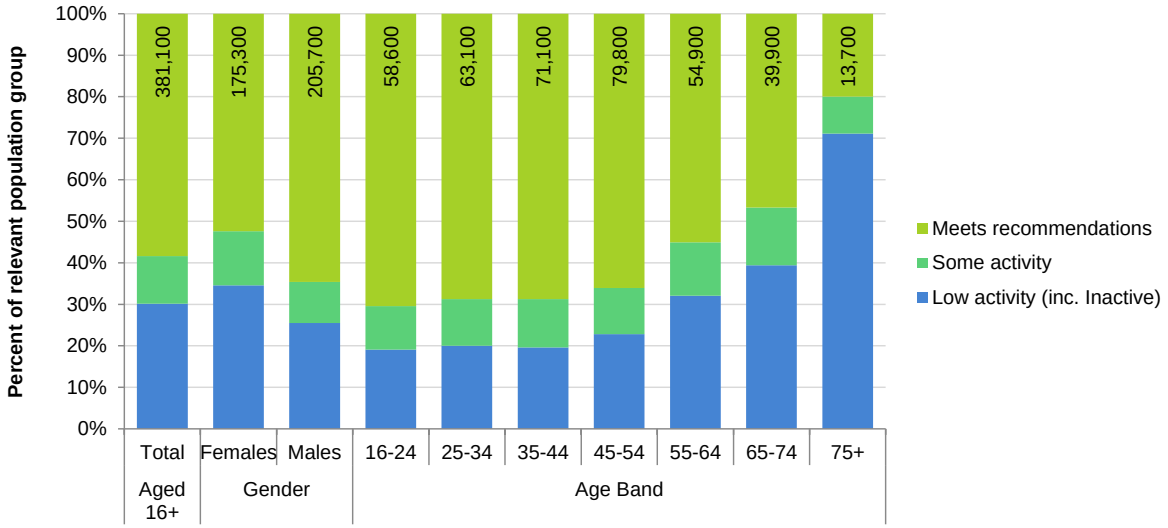
- Data from the annual *Health Survey for England* (HSE) applied to the population of Nottinghamshire (Figures 1& 2. Table 2). The HSE collects data on sport, recreational and occupational physical activity, and walking and cycling for any purpose, and includes heavy housework and gardening, covering all categories of physical activity.
- Data from the *Public Health Outcomes Framework* (PHOF 2.13i & 2.13ii) for the proportion of adults aged 16 and over classified as active and inactive at local authority level (Figures 3 & 4). Information is obtained via the national Sport England's Active People's Survey that measures participation in sport and active recreation.

There are limitations with both datasets in that they rely on self-reporting and people tend to overestimate their actual levels of physical activity. The Health Survey for England data provides an estimate at local level using national self-reported data whereas the Public Health

Outcomes Framework data is based on self- reported information from local residents to the Sport England Active Peoples survey. Therefore methodological differences should be taken into consideration when looking at these results.

The two data sets suggest that between 381,000 and 408,000 adults aged 16 and over in Nottinghamshire County are achieving at least 150 minutes of physical activity per week (Figures 1, 2 & 3).

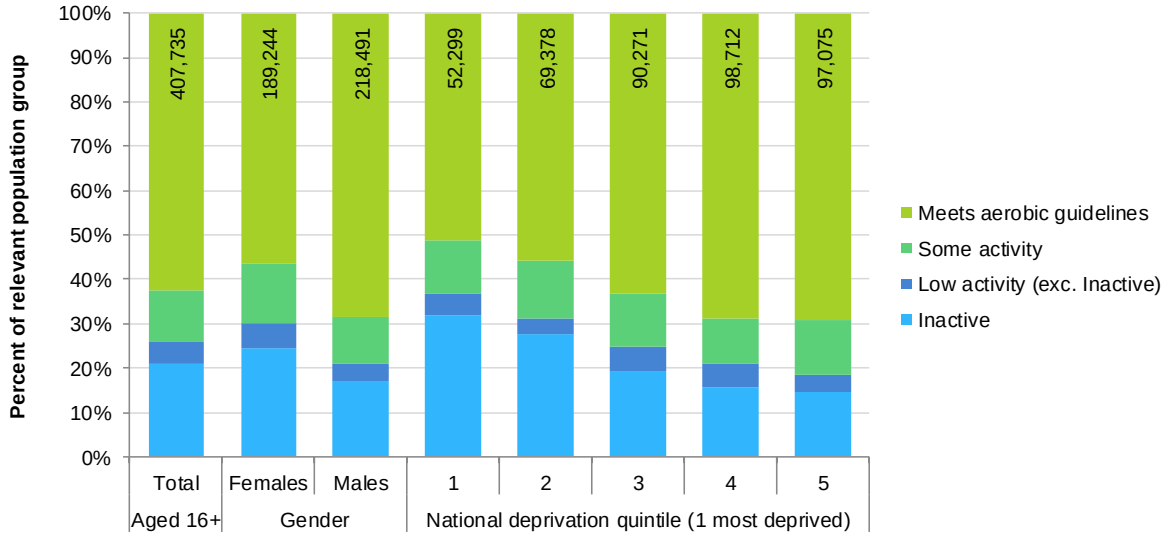
Figure 1: Estimated physical activity levels using the new UK physical activity guidelines (2011) in the Nottinghamshire County population aged 16+, by gender and age band: 2012



Source: Source: HSE2012 Chapter 2 Physical activity in adults

- There are estimated to be over 380,000 adults (16+) in Nottinghamshire that meet the recommended 150 minutes of moderate intensity activity per week, representing over 58% of the population.
- More men than women meet the recommended 150 minutes of moderate intensity activity per week (64.6% and 52.4% respectively).
- Higher percentages of adults (16+) meet the recommendations for physical activity in younger age bands from 70.4% in the 16-24 year old age band to 19.9% in the 75+ age band. For each age band in Nottinghamshire, there is also consistently 10-12% of the population who do some activity but do not meet the recommendations.

Figure 2: Estimated physical activity levels using the new UK physical activity guidelines (2011) in the Nottinghamshire County population aged 16+, by gender and deprivation



Source: HSE2012 Chapter 2 Physical activity in adults

- Levels of physical activity increase with quintiles of deprivation. Quintile 1 (the most economically deprived fifth of the population) is less physically active than quintiles 4 and 5 (the two least economically deprived fifths of the population). This means that on average people who are in lower socio-economic groups are less likely to achieve the recommended levels of physical activity.

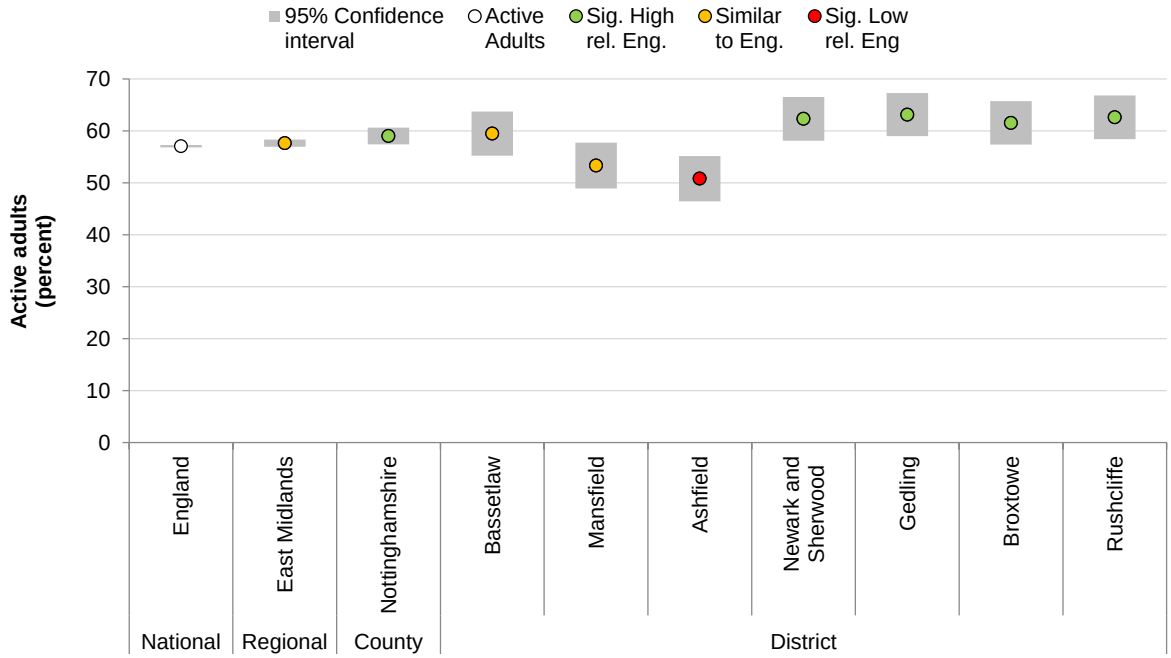
Table 2: Estimated number and percentage of adults aged 16+ in Nottinghamshire County and Districts meeting the new UK physical activity guidelines (2011) based on national rates using new/current recommendations.

Meets recommendations	**Aged 16+**		
Organisation	**Estimated number**	**Total residents**	***Estimated percent***
Bassetlaw	56,432	93,641	*60.3*
Mansfield	49,557	86,133	*57.5*
Ashfield	57,816	98,536	*58.7*
Newark and Sherwood	60,252	95,796	*62.9*
Gedling	60,505	94,282	*64.2*
Broxtowe	60,168	92,276	*65.2*
Rushcliffe	63,006	92,148	*68.4*
Nottinghamshire County	**407,735**	**652,812**	***62.5***

Source: HSE2012 Chapter 2 Physical activity in adults

- Residents in Rushcliffe are more likely than residents in Mansfield to meet the recommended 150 minutes of moderate intensity activity per week (68.4% and 57.5% respectively)

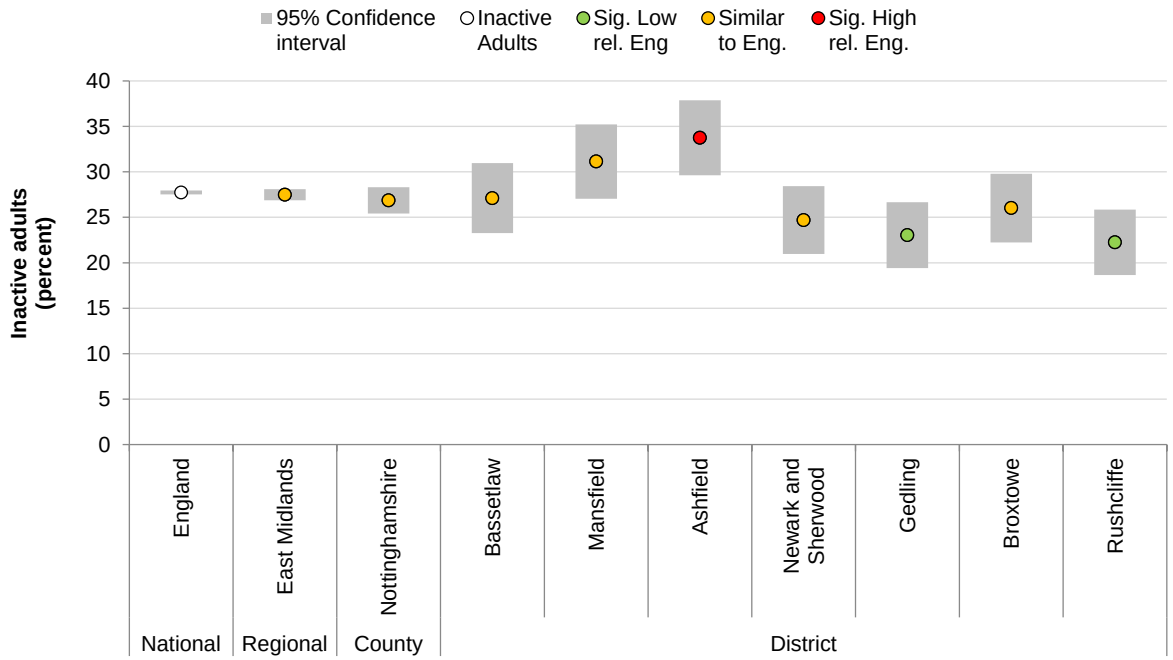
Figure 3: Estimated proportion of adults aged 16 and over achieving at least 150 minutes of physical activity per week in accordance with UK Chief Medical Officer (CMO) recommended guidelines (2011) on physical activity in Nottinghamshire County and Districts based on PHOF Indicator 2.13i (Active People's Survey results 2014)



Source: PHOF 2.13i (active) adults (2015 August update)

- There are estimated to be 388,000 adults aged 16 and over that are achieving at least 150 minutes of physical activity per week in Nottinghamshire County, representing 59% of the population.
- Nottinghamshire County has a **statistically higher** proportion of adults aged 16 and over that are achieving at least 150 minutes of physical activity per week compared to the England average. This is mirrored in Broxtowe, Gedling, Newark & Sherwood and Rushcliffe.
- Ashfield has a **statistically lower** proportion of adults aged 16 and over that are achieving at least 150 minutes of physical activity per week compared to the England average.

Figure 4: Estimated proportion of adults aged 16 and over that are inactive (doing less than 30 'equivalent' minutes of at least moderate intensity physical activity per week in bouts of 10 minutes or more) based on PHOF Indicator 2.13ii (Active People's Survey results 2014)



Source: PHOF 2.13ii (inactive) adults (2015 August update)

- There are estimated to be 176,600 adults aged 16 and over that are inactive, representing 26.9% of the population.
- Nottinghamshire County has a **statistically similar** proportion of adults aged 16 and over that are inactive compared to the England average. This is mirrored in Bassetlaw, Broxtowe, Mansfield, Newark and Sherwood.
- The Ashfield district has a **statistically higher** proportion of adults aged 16 and over that are inactive compared to the England average.
- Gedling and Rushcliffe have a **statistically lower** proportion of adults aged 16 and over than are inactive compared to the England average.

Comparison between new and previous recommended activity levels

The Chief Medical Officers of England, Scotland, Northern Ireland and Wales published updated physical activity guidelines in 2011 (Department of Health, 2011). While the duration of activity recommended remained the same as before (a minimum of 150 minutes of moderate intensity activity per week, in place of five sessions of 30 minutes per week), the new guidelines presented more ways for people to achieve recommended levels of physical activity, including accumulating 10 minute bouts and counting time spent in vigorous activity as worth twice that spent on moderate activity. Table 3 provides detail of the previous and new physical activity recommendation descriptions.

Table 3: Physical activity recommendation descriptions

Recommendation Short name	Introduced	Description	Notes
Previous	2004	30 minutes moderate or vigorous physical activity (in 10 minute bouts or more) per day on at least 5 days per week	Daily activity
New	2011	150 minutes moderate physical activity (in 10 minute bouts or more) per week OR 75 minutes vigorous physical activity per week	Weekly activity

Source: HSE2012 Chapter 2 Physical activity in adults

Table 4 compares the national rates and local estimated numbers for the 2008 and 2012 Health Survey for England using the new and previous recommendations.

Table 4: Comparing the national rates and local estimated numbers for the 2008 and 2012 meeting the new and previous recommendations

Meets recommendations		*Percent* **England**		Estimated numbers **Nottinghamshire**	
Survey year	**Gender**	**Previous**	**New**	**Previous**	**New**
2008	Males	*42.0*	*65.6*	127,400	202,400
	Females	*30.6*	*53.2*	98,100	172,400
	Persons	***36.2***	***59.2***	**225,500**	**374,700**
2012	Males	*43.0*	*66.2*	131,700	205,700
	Females	*32.5*	*53.8*	105,300	175,300
	Persons	***37.6***	***59.9***	**236,900**	**381,100**

Source: Secondary analysis from HSE2012 Adult trends physical activity in adults, ONS mid-year population estimates 2013

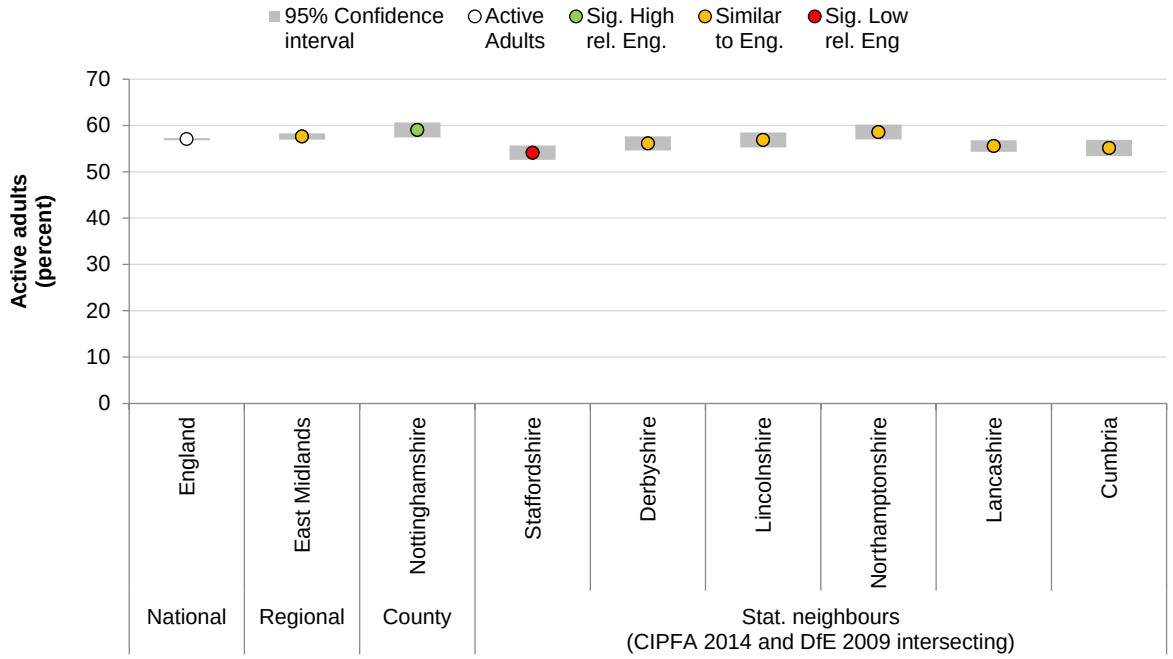
The new recommendation has led to changes in the interpretation and analysis of physical activity data that have resulted in a substantial increase in the reported prevalence of people assessed as sufficiently active. When the 2008 data from the HSE are re-analysed using the new recommended activity levels, the proportion of males reported as achieving recommended levels of physical activity increases from 42% to 65.6% and the proportion of women increases from 30.6% to 53.2%. These increases reflect change in analytical approach, not genuine changes in physical activity. When the survey data are reanalysed alongside those of previous years using the same analytical approach, it is clear that the level has remained unchanged between 2008 and 2012.

The revised figures should not encourage complacency about the continued need to promote and support activity across the population.

Bench marking to statistical neighbours

The percentage of adults aged 16 and over that are achieving at least 150 minutes of physical activity per week in Nottinghamshire County and its statistical neighbours[1] is given in Figure 5.

Figure 5: Estimated proportion of adults aged 16 and over achieving at least 150 minutes of physical activity per week in accordance with UK Chief Medical Officer (CMO) recommended guidelines on physical activity in Nottinghamshire County and statistical neighbours based on PHOF Indicator 2.13i (Active People's Survey results 2014)

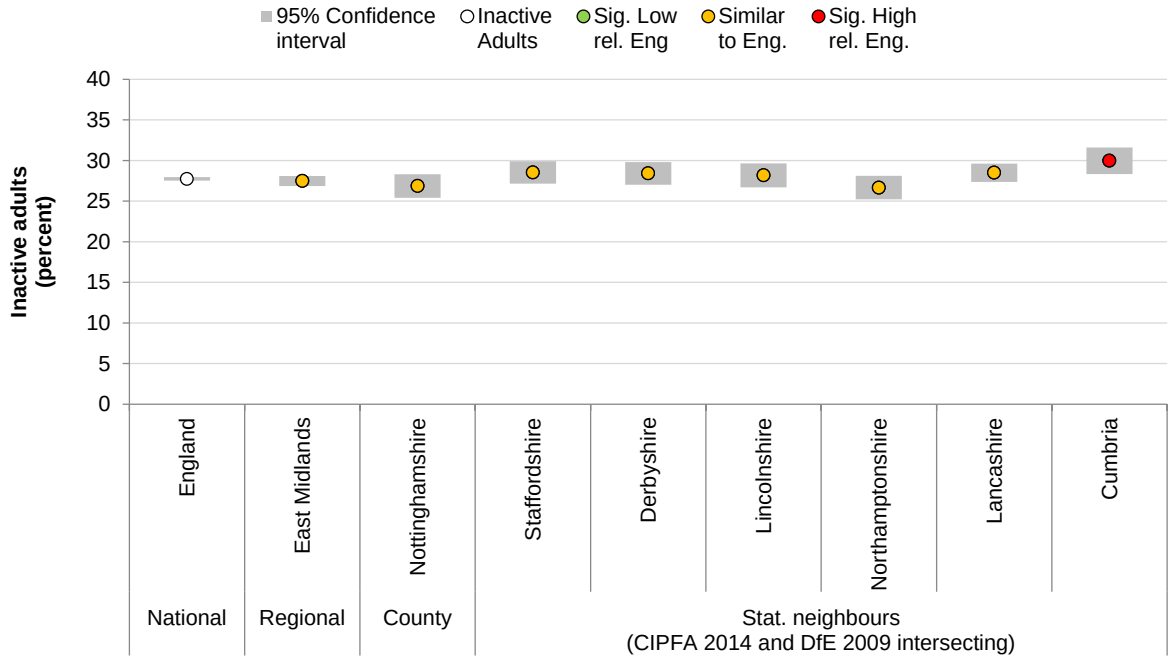


Source: PHOF 2.13i (active) adults (2015 August update)

- Nottinghamshire has the highest percentage of active adults compared to its statistical neighbours.

[1] Statistical neighbours have been taken from the Chartered Institute of Public Finance & Accountancy (CIPFA) 2014 and Department for Education (DfE) 2009 nearest neighbour reports. CIPFA is relevant for general population but mostly for adults, whereas DfE is relevant for children. There is overlap between the two lists and the six that appear in both lists have been used as the statistical neighbour set. These are Cumbria, Derbyshire, Lancashire, Lincolnshire, Northamptonshire and Staffordshire

Figure 6: Estimated proportion of adults aged 16 and over that are inactive (doing less than 30 'equivalent' minutes of at least moderate intensity physical activity per week in bouts of 10 minutes or more) based on PHOF Indicator 2.13ii (Active People's Survey results 2014)



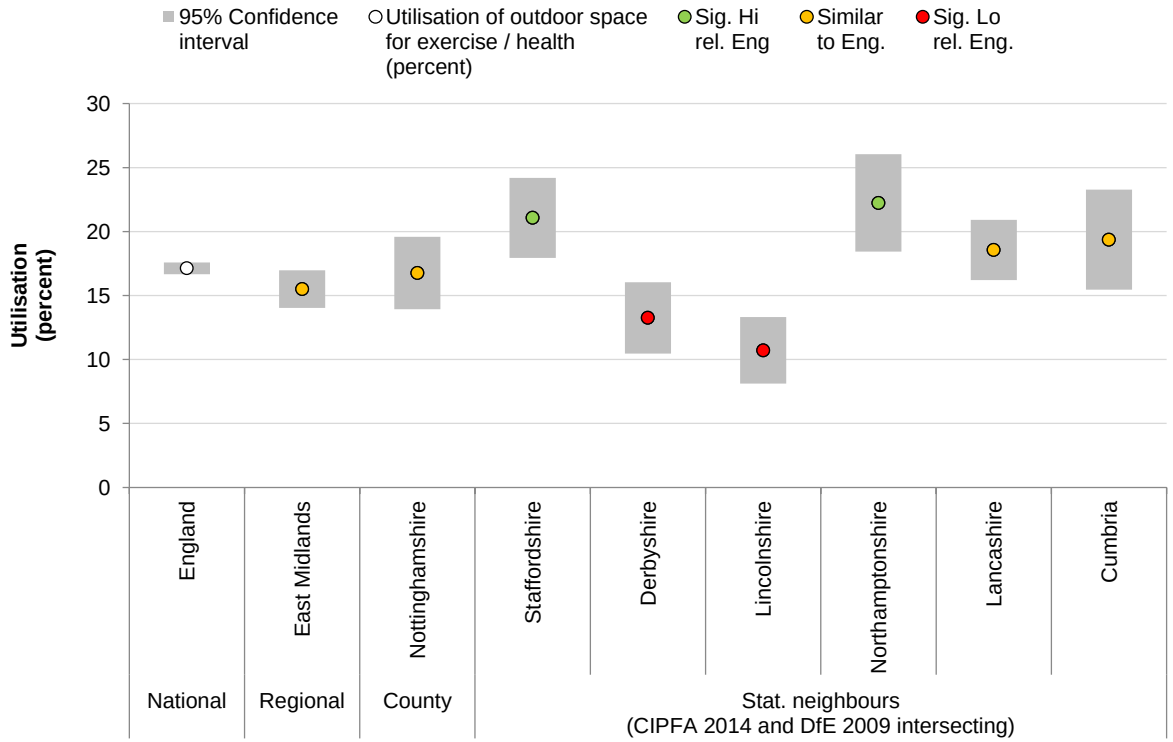
Source: PHOF 2.13ii (inactive) adults (2015 August update)

- Nottinghamshire County has the 2nd lowest percentage of inactive adults compared to its statistical neighbours

Utilisation of outdoor space for exercise/health reasons

The Public Health Outcome Framework indicator considers the utilisation of outdoor space and exercise for health reasons (PHOF 1.16) which although it does not measure physical activity levels it does provide information about the proportion of residents taking a visit to the natural environment for health or exercise purposes. Visits to the natural environment are defined as time spent 'out of doors' in open spaces in and around towns and cities, including parks, canals and nature areas; the coast and beaches; and the countryside including farmland, woodland, hills and rivers. Figure 7 compares the utilisation of outdoor space for exercise or health reasons in Nottinghamshire County and its statistical neighbours between March 2013 and February 2014.

Figure 7: Utilisation of outdoor space for exercise/health reasons in Nottinghamshire and statistical neighbours Mar13 / Feb 14.



Source: PHOF 1.16 (August 2015 update) (Based on Natural England MENE survey data) (last accessed August 2015)

- There are estimated to be 134,300 of the population utilising outdoor space for exercise/health reasons in Nottinghamshire, representing 16.8% of the population
- The utilisation of outdoor space for exercise/health reasons for Nottinghamshire County is **statistically similar** to the England average.
- The range of the population utilising outdoor space for exercise/health reasons for Nottinghamshire and its statistical neighbours is between 10.7% and 22.2%
- Nottinghamshire County has the 3rd lowest percentage of the population utilising outdoor space for exercise / health reasons compared to its statistical neighbours

3) Targets and performance

The Government's national ambition for physical activity is to have a year on year increase in the number of adults doing 150 minutes of exercise per week (in bouts of 10 minutes or more) and a year on year decrease in those who are inactive, defined as doing less than 30 minutes of exercise per week (in bouts of 10 minutes or more).

These ambitions are also highlighted as indicators within Domain 2 (Health Improvement) of the Public Health Outcomes Framework (PHOF) 2013-16 (Department of Health 2012)

- Indicator 2.13i proportion of the adult population who reported being active (achieving at least 150 minutes of physical activity per week)
- Indicator 2.13ii. proportion of the adult population who reported being inactive (doing less than 30 'equivalent' minutes of at least moderate intensity physical activity per week in bouts of 10 minutes or more)

Both these indicators are collected as part of the Sport England Active People's Survey. Data for these indicators is presented in section 2 of this report.

Within Domain 1 that considers the wider determinants of health, indicator 1.16 is used to measure the percentage of people using outdoor space for exercise/health reasons. This is collected as part of the Natural England: Monitor of Engagement with the Natural Environment (MENE) survey. Data for this indicator is presented in section 2 of this report.

NICE quality standards

These are concise sets of prioritised statements designed to drive measurable quality improvements within a particular area of health or care. They are derived from the best available evidence such as NICE guidance and other evidence sources accredited by NICE. There are currently 2 quality standards that have statements relating to physical activity

- Obesity: prevention and lifestyle weight management in children and young people QS94 NICE (2015). There is one quality statements relating to physical activity:
    - Statement 8: Reducing sedentary behaviour
- Physical activity: encouraging activity in all people in contact with the NHS QS84 NICE (2015). There are four quality statements
    - Statement 1: Advice for adults during NHS Health Checks
    - Statement 2: Advice for parents or carers as part of the Healthy Child Programme 2 year review
    - Statement 3: Advice for parents or carers as part of the National Child Measurement Programme
    - Statement 4: Implementing a physical activity programme for employees of NHS organisations

4) Current activity, service provision and assets

Strategy

The Framework for Action on Tackling Excess Weight (2013-18) and associated action plan developed by the Obesity Integrated Commissioning Group is the delivery mechanism for the Nottinghamshire Health and Wellbeing strategy to tackle excess weight. There are a number of actions to increase levels of physical activity with the following priorities:

- Increase the number of workplaces that are promoting and supporting physical activity.
- Identify how planning activities can support healthy living and access to green space.
- Increase levels of cycling undertaken in the county and by district on an annual basis.

Current local service provision

From April 2013, Public Health in Local Authorities became the responsible commissioner for physical activity initiatives via funding from the Public Health Grant. Since the last JSNA update, exercise referral and other physical activity services previously commissioned by Public Health have been decommissioned and a competitive tender has been undertaken for an obesity prevention and weight management service covering Tiers 1, 2 and 3. Tier 1 includes targeted physical activity prevention and early intervention activities as well as providing brief intervention and motivational interviewing for frontline health and social care staff.

Nottinghamshire County Council (NCC) awarded the new Obesity Prevention and Weight Management integrated service to Everyone Health, Sport and Leisure Management (SLM) in December 2014. The service went live on 1st April 2015. This new service has been commissioned on achievement of outcomes, one of which is physical activity. The first year of the contract will be used to determine the tools to measure this outcome and provide a baseline before setting performance targets for future years. Future updates of this JSNA chapter will provide detail on physical activity interventions and outcomes of the service

Assets

The table below provides an overview of the current assets there are in Nottinghamshire which support physical activity:

Asset	Description
Societal influences	
Change4Life Eat well, move more, live longer	Change4Life is the national social marketing programme focussing on promoting healthy weight across the life course including moving more. The national programme and Change4Life and Start4Life branding is utilised locally by services and districts.
Government's Public Health Responsibility Deal: Physical activity pledges	Launched in March 2011, there are 5 collective pledges to support the core commitment to encourage and assist people to become more active.
COUNTY LEVEL INTERVENTIONS /INITIATIVES	
The Framework for Sport in Nottinghamshire	The priorities are: ***Facilities*** • Maximise community access to education facilities • Protect and enhance community sport facilities provision • Maximise investment in sporting facilities, matching need and opportunities • Develop appropriate facilities for elite performance • Develop major spectator facilities ***Major Sport events*** • To host 4 major sport events in Nottinghamshire each year ***Children and Young People***

Asset	Description
	• Increase the number of Children and Young People participating in sport and physical activity in clubs, schools, further education and higher education • Ensure that every young person in Nottinghamshire has the opportunity to reach their full potential in sport by working with Non-Governing Bodies (NGBs) to develop appropriate performance pathways ***Community Sport and Physical Activity*** • The people of Nottinghamshire are more active more often • Use 2012 as a driver to increase participation in sport and physical activity • Use 2012 to inspire an entire generation to reach their full potential
Early Years, Children and Young People	
Family Nurse Partnership	Intensive support programme for teenage parents to have a healthy pregnancy and improve the health of their child.
Healthy Child Programme	The early identification and prevention of obesity is a key priority in HCP. All families are given information and advice around active play.
Children's Centres	54 of the Children's Centres (93%) are engaged in the Healthy Early Years status which encourages healthy lifestyles, including physical activity and healthy eating. 33 have achieved gold status, 21 are working towards gold and 4 have yet to engage.
Primary School Physical Education and Sport Funding	From September 2014, all primary schools have received an annual PE and School Sport Premium and will continue to until 2016 with a further commitment from the government to continue this funding until 2020. Schools must spend the funding to improve the quality of the PE and sport activities they offer their pupils, but they are free to choose the best way of using the money. In partnership with area School Games Organisers (SGOs) offers a comprehensive range of continuous professional development (CPD) programmes for all primary schools in Nottinghamshire to support this funding and ensure that the programme is sustainable
School nursing and healthy schools	A proposed remodelling of the intervention is taking place. The new model will aim to provide advice and guidance to schools on a range of public health priorities, including physical activity.
Nottinghamshire Sustainable School Travel Strategy	Published in 2015, and has three aims: **Aim 1:** promote healthy lifestyles for children and young people by encouraging walking and cycling to school and college, raising awareness of healthy and sustainable travel, training young people to travel independently, encouraging schools to promote healthy journeys to school. **Aim 2:** collaborate across council departments to facilitate the sustainable school travel strategy.

Asset	Description
	Aim 3: meet the statutory requirements by ensuring eligible young people receive travel assistance to school, and promoting sustainable travel to schools.
School Games	Inspired by the 2012 Olympic and Paralympic Games, School Games is designed to boost participation in competitive sport for young people of all abilities and backgrounds, by significantly enhancing the year round calendar of competitive school sport. Sport Nottinghamshire organise the County Level 3 Festivals engaging up to 2000 athletes and 200 young Leaders. At Levels 1 and 2, the School Games Organisers work with all the schools in their area to generate sports competition.
Change4Life School Clubs	Change4Life Sports Clubs are an extracurricular sports club, designed to increase physical activity levels in less active children in primary and secondary schools.
Satellite Clubs	Sport Nottinghamshire works with clubs, schools and colleges to establish 66 Satellite Clubs between 2013 and 2016
Sportivate	Sport Nottinghamshire coordinates Sportivate in Nottinghamshire and will be investing approximately £160,000 per year between April 2011 and March 2017, to support and develop projects that will engage with and stimulate 11-25 year olds who don't currently participate in any sport or exercise.
Workplaces	
Nottinghamshire Wellbeing at Work: Workplace Health Award	The scheme aims to provide small, medium and large sized organisations with the opportunity to promote and enable better health and wellbeing in the workplace. The scheme is open to all organisations regardless of industry (or sector). Theme 3 is around healthy weight and includes physical activity. Locally within Nottinghamshire there has been an increase in numbers signed up to The Workplace Health Scheme as it has been rolled out throughout the County with 9 new workplaces signed up to the revised County model, and a further 8 pending (June 2015)
Workplace challenge	The Workplace Challenge is a national programme which aims to engage workplaces in sport and physical activity. Companies and organisations across Nottinghamshire are invited by Sport Nottinghamshire to take part in the 'Workplace Challenge'. The aim of the programme is to promote sport, physical activity and health improvements across England's workplaces.
DISTRICT/LOCALITY INTERVENTIONS/INITIATIVES	
Physical activity strategies and plans	Each district has a physical activity strategy and plan in place.

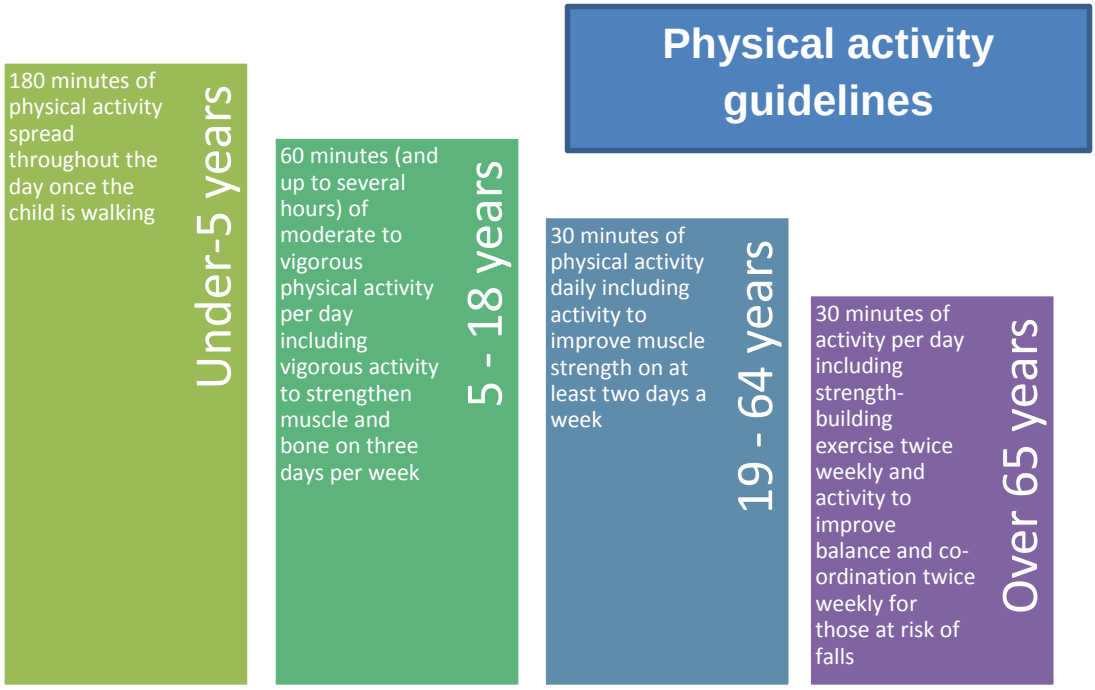
Asset	Description
Community Sport Networks	Several of the districts have a community sport network to co-ordinate work to increase participation around sport and increase physical activity.
Sport facilities	There is provision of sport facilities in each district.
Walking for Health	Walking for Health is a scheme that promotes short, easy walks in local areas. They are particularly aimed at people who don't usually take much exercise. The walks are free, sociable and led by trained leaders.
Fit4Life Partnership Sport England's Get Healthy, Get Active Lottery funded programme	This project aims to engage 5040 inactive people with Type 2 Diabetes in regular sport and physical activity through community based clubs and groups. Areas covered are Nottingham West, Nottingham North and East and Rushcliffe CCG's (as well as Nottingham City). Delivered by the Community Sports Trust in conjunction with Sport Nottinghamshire.
Tackling the obesity promoting environment – physical activity	
County level	
Local Transport Plan (LTP) Nottinghamshire County Council	This sets out the overarching transport strategy for Nottinghamshire and is supported by a number of more detailed strategies detailing how the LTP will be delivered. The aim is to improve infrastructure and promote uptake of walking and cycling and reducing reliance on cars by promoting sustainable transport.
20mph speed limits Nottinghamshire County Council	Advisory 20mph speed limits were installed outside 112 schools during 2014/15. For the remaining 164 schools the advisory speed limit will be introduced during 2015/16. The use of 20 mph area wide limits is currently being considered in parts of Nottinghamshire County.
Rights of Way Nottinghamshire County Council	Rights of way are public paths. They criss-cross the UK, from town centres to remote countryside, providing opportunities for everyone to get out and enjoy a walk, cycle or horse ride. Nottinghamshire County Council has a Rights of Way Improvement Plan.
District level	
Local development plans/core strategies	Currently limited joint working with planners and public health to ensure that the built and natural environment supports and encourages physical activity.
Parks, open spaces and allotments	Nottinghamshire County Council and districts promote parks, and other green space within localities.

5) Evidence of what works

For general health benefits the UK guidelines for physical activity recommend that adults aged 19 years and over should undertake a minimum of 150 minutes (2½ hours) of moderate intensity activity per week in bouts of 10 minutes or more. Alternatively, comparable benefits can be achieved through 75 minutes of vigorous intensity activity spread across the week, or combinations of moderate and vigorous intensity activity. One way to approach this is to achieve 30 minutes of moderate intensity activity on at least five days a week. Even if someone is not able to do the recommended amount of exercise, each small step away from sedentary living helps. Particularly for older people, it is better to do something than nothing and to sit for less time (UK physical activity guidelines, 2011). The largest health gains occur in people moving from inactive to moderately inactive and from moderately inactive to moderately active

(Academy of Medical Royal Colleges, 2015). The guidelines for physical activity for all age groups are given in Figure 8.

Figure 8: Department of Health (2011) Physical Activity Guidelines



All groups of the population should be minimising the amount of time spent being inactive. Standing rather than sitting will elevate the heartbeat on average around 10 beats per minute and that makes a difference of about 0.7 of a calorie per minute, adding up to about 50 calories an hour. Standing for three hours a day for five days will burn around 750 calories. Over the course of a year just standing instead of sitting could burn up to 30,000 extra calories. That's 8lbs of human fat and would be the equivalent of running about 10 marathons a year (Buckley J et al, 2013). Evidence on the links between sedentary living, including time at work and the leading causes of morbidity and mortality (cardiovascular disease, diabetes and some cancers) has been increasing (Buckley J et al, 2015). Guidelines to promote the avoidance of prolonged periods of sedentary work have recently been produced (Buckley J et al, 2015). For those occupations which are predominantly desk based, workers should aim to initially progress towards accumulating 2 hours per day of standing and light walking during working hours. To achieve this, seated based work should be regularly broken up with standing based work, the use of sit-stand desks or the taking of short active standing breaks.

The Foresight report (Butland B et al. 2007) highlights physical activity and the activity environment as predominant themes in the obesity system map which combined with other key elements such as diet plays a vital part in the healthy weight of the population. This report indicates the importance of the type, frequency and intensity of activities an individual carries out, such as cycling vigorously to work every day and the influence of the environment on an individual's activity behaviour for example a decision to cycle to work may be influenced by road safety, air pollution or provision of a cycle shelter and showers.

The National Institute for Health and Clinical Excellence (NICE) develop guidance documents. These include interventions on an individual level changing individual behaviour also more 'upstream' environmental interventions, such as changes to the local environment to encourage active modes of transport such as walking and cycling. The key documents are:

- Physical activity and the environment (2008) PH08
- Promoting physical activity in the workplace (2008) PH13
- Mental wellbeing in over 65s: occupational therapy and physical activity interventions (2008) PH16
- Promoting physical activity in children and young people (2009) PH17
- Prevention of cardiovascular disease (2010) PH25
- Preventing type 2 diabetes – population and community interventions (2011) PH35
- Walking and cycling (2012) PH41
- Obesity: working with local communities (2012) PH42
- Physical activity: brief advice for adults in primary care (2013) PH44
- Exercise referral schemes to promote physical activity (2014) PH 54
- Maintaining a healthy weight and preventing excess weight gain among adults and children (2015) NG7
- Dementia, disability and frailty in later life – mid-life approaches to delay or prevent onset (2015) NG16

Key documents produced by Public Health England which make reference to physical activity are:

- UK physical activity guidelines (Jul 2011)
- Obesity and the environment briefing: increasing physical activity and active transport (Nov 13)
- Improving access to green spaces (Sept 14)
- Everyone active, every day. An evidence approach to physical activity (Oct 14)

The report Everyone Active, Every Day (PHE, 2014) identifies that action is required across four areas at both national and local level:

1. Active society: creating a social movement
2. Moving professionals: activating networks of expertise
3. Active environments: creating the right spaces
4. Moving at scale: scaling up interventions that make us active.

The NICE guidance *Physical activity: brief advice for adults in primary care* (PH44) recognises that brief interventions are cost effective at increasing physical activity levels and recommends that primary care practitioners use the general practice physical activity questionnaire (known as the GPPAQ) to guide discussions with patients about physical activity.

However, it is clear from the evidence that interventions focused on encouraging individuals to change their physical activity behaviour need to be underpinned by broader, population-level interventions. Population-level interventions have the advantage of impacting on far greater numbers than could ever benefit from individual interventions, and may be more effective at tackling health inequalities than individual interventions. If physical activity is

seen as normal, more people are likely to engage in it. Therefore community wide, culturally appropriate schemes to encourage physical activity work best.

The planning system can play a key role in improving public health. The National Planning Policy Framework (Department for Communities and Local Government, 2012) is clear that the purpose of the planning system is to contribute to the achievement of sustainable development, which includes the health, social and cultural wellbeing of local communities. The built environment has a strong impact on physical activity levels. Increased physical activity can be encouraged by planning in the following areas: location, layout and density of land use; street layout; open and green space; community interaction; transport links (PHE, 2014a). Access to open and green space- parks, gardens, tree lined streets, communal squares and allotments encourages physical activity, reduces body mass index reducing levels of excess weight, alleviates stress and depression improving health, wellbeing and social safety (PHE 2014b).

The recent publication 'Planning Healthy Weight Environments' by the Town and Country Planning Association and Public Health England (2014) gives guidance on how local authority planners can create places that enable people to achieve and maintain a healthy weight with three areas considered to increase physical activity:

- movement and access
- open space, recreation and play
- neighbourhood space

There is an extensive evidence base for effective action on active travel. The most relevant and recent review has been conducted by NICE, looking specifically at local measures to promote active transport (NICE, 2012). Creating an environment where people actively choose to walk and cycle as part of everyday life can have a significant impact on public health and may reduce inequalities in health. It is an essential component of a strategic approach to increasing physical activity and may be more cost-effective than other initiatives that promote exercise, sport and active leisure pursuits (Cavill N, 2013). Benefits to cost ratios of between 10:1 and 19:1 are reported for infrastructure to increase walking and cycling mainly relating to health gains in the local population (NICE, 2012). Active travel, on foot, by bike, and using other forms of travel which involve physical activity should be prioritised when new developments are planned, as giving priority to active travel has been shown to increase physical activity levels.

6) What is on the horizon?

Children and Young People

The commissioning of 0-5 children's public health transferred from NHS England to Local Authorities (LAs) in October 2015. This includes health visiting and Family Nurse Partnership ((FNP) targeted services for teenage mothers). This transfer will join-up that already done by LAs for public health services for children and young people 5-19, (and up to age 25 for young people with Special Educational Needs and Disability [SEND]). One of the high impact areas for the Healthy Child Programme is healthy weight, healthy nutrition including physical activity)

Expansion of school sport programme into every primary school in England and Wales

In October 2015 the Prime Minster announced that the Premier League will expand their school sport programme over the next 6 years to every primary school in the country and have a new grassroots sport fund to support sport, including in disadvantaged groups

Department for Culture, Media and Sport - Strategy for Sport
This new strategy for sport participation, which has been consulted on during 2015, will ensure that sport is used as inclusively as possible and considers all forms of physical activity to encourage everyone, irrespective of age or disability to become more active.

NICE guidance
Physical activity and the environment including accessibility for people with mobility problems or additional needs. Publication anticipated Jan 2018

7) Local Views
A consultation with service users, current providers and key stakeholders took place between October 2013 and December 2013 to help define what approach obesity prevention and weight management service provision should look like in Nottinghamshire. Children, young people and adults are supportive of preventative services which increase physical activity. Respondents would like to see a variety of preventative interventions in a range of settings including schools, youth clubs, with a large majority of respondents keen to see the establishment of physical activity sessions being offered. A summary can be found here.

What does this tell us?

8) Unmet needs and service gaps

Since the last JSNA refresh in 2012 there is an integrated Tier 1, 2 and 3 obesity prevention and weight management pathway in place. Over the next few years the service numbers accessing Tier 1 physical activity interventions will be monitored to provide information on uptake, service demand, outcomes achieved and ascertain if there are any unmet needs.

There is a need to maximise local assets as effectively as possible to promote physical activity within the resources that there are. This includes utilising the impact that the wider public health workforce, different professional groups and others are able to provide, particularly working with planning colleagues to ensure that the built and natural environment both supports and encourages physical activity.

9) Knowledge gaps

The gaps in knowledge include:

- Accurate local data on physical activity levels of children, young people and adults and different communities
- Accurate local data on usage of open and green space
- Lack of coherent information and evaluation of physical activity interventions to establish sustained behaviour change across the county
- Effectiveness of new technologies in changing behaviours over the long term
- Evaluation of built environment and transport infrastructure interventions

What should we do next?

10) Recommendations for consideration by commissioners

Recommendations		Lead
Strategy and integrated commissioning		
1.	Work with partners across the system to ensure there is no duplication or gaps in physical activity service provision targeting areas and groups whose physical activity levels are the poorest to maximise health outcomes, monitoring uptake by protected groups.	County Council/Public Health, District/Borough Councils and Clinical Commissioning Groups
Social marketing		
2.	An active lifestyle is promoted through Change4Life across Nottinghamshire Districts	County Council and District/Borough Councils
Public Health Intelligence and data improvement		
3.	Utilise data from the local Health Checks programme to provide information about physical activity levels and access to local services.	Public Health
Prevention		
4.	Ensure that physical activity remains a priority for the commissioning of services for 0-19 age group by the Integrated Children's Hub	Public Health (Children's Integrated Commissioning Hub)
5.	Continue to improve infrastructure and promote the uptake of walking and cycling, reducing reliance on cars.	Transport, County Council

6.	Develop closer working relationships between planners and public health professionals to ensure the opportunities that planning gives re-designs environments to encourage physical activity and an active lifestyle.	Planning and Public Health
Service quality and accessibility		
7.	Undertake an audit of progress locally against the NICE quality standards relating to physical activity, to benchmark and identify areas where improvements are needed.	Public Health
8.	Commission physical activity interventions that are evidence based and utilise the Standard Evaluation Framework for physical activity to evaluate.	Public Health and District/Borough Councils
9.	Continue to build the capability of the workforce to ensure that health and care professionals are clear about promoting the benefits of physical activity so that they have healthy conversations (making every contact count) with their patients and service users providing evidence based messages.	Public Health
10.	Influence Primary Care Professionals to use the General Practice Physical Activity Questionnaire (GPPAQ) and utilise brief intervention and as appropriate signpost to physical activity opportunities.	NHS England/Clinical Commissioning Groups
11.	Within the first year of the new obesity prevention and weight management contract, agree the how the physical activity outcome will be measured and obtain baseline data to help inform performance targets for the following year.	Public Health

Key contacts

Anne Pridgeon- Senior Public Health Manager Nottinghamshire County Council anne.pridgeon@nottscc.gov.uk

Barbara Brady- Consultant in Public Health Nottinghamshire County Council Barbara.brady@nottscc.gov.uk

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