Chapter 7: Strengthen the Role & Impact of Ill Health Prevention

Physical Activity

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Health Problem/Issue

Introduction

The World Health Organisation (WHO) defines Physical Activity as “Any bodily movement produced by skeletal muscles that requires energy expenditure.”

The term not only refers to organised and competitive sport, but also all forms of activity including: walking, cycling, active play, work related activity, using the stairs instead of the lift, dancing, and gardening as outlined in the Department of Health, 2011 report “Start Active, Stay Active: a Report on Physical Activity from the Four Home Countries’ Chief Medical Officers”.

A physically active lifestyle is vital to both improving and maintaining health, and there is now widespread recognition of the many benefits of physical activity across the behavioural, physical and mental health and cognitive domains, alongside positive impacts on the environmental, economic and transport systems. Participation in physical activity can result in raised self-esteem and give a sense of social integration through combating social exclusion as anyone can participate at some level regardless of age, sex or race.

Even small increases in physical activity are associated with protection against chronic disease and an improved quality of life.

Over the past 40 years, people in the UK have become less physically active in their everyday lives with an even smaller proportion of the population taking part in physical activity for leisure. We have fewer manual jobs, more labour saving gadgets, and cars use has resulted in a 25% reduction in travel by foot or bicycle.

The benefits of regular physical activity have been clearly articulated. Adults achieving 150 minutes of moderate intensity physical activity a week, (the recommended guideline of the Department of Health, 2011) help to prevent and manage over 20 chronic conditions including coronary heart disease, stroke, type 2 diabetes, cancer, obesity, mental health problems and musculoskeletal conditions.

However, despite the multiple health gains associated with a physically active lifestyle, it is estimated that only 40% of adult men and 28% of adult women meet the

previous CMO's recommendations for health. That is 27 million adults in England alone who are not active enough to benefit their health.[1]

- Evidence – Why is it a public health problem?

Promoting active lifestyles is a simple answer to many of the big health challenges facing our country today. With significant potential to improve the health of the nation, reduce all-cause mortality and improve life expectancy, promoting physical activity can save the NHS money and significantly ease the burden of chronic disease on the acute sector and public services.[2]

Although there are few specific targets related to physical activity, its role in the prevention, management and rehabilitation of many health conditions has been documented in key national and local health strategies and targets.

Physical inactivity is known to be the fourth leading cause of global mortality. Worldwide it accounts for 6% of the burden of disease from ischemic heart disease, 7% of type 2 diabetes, and 10% of breast and colon cancers. It is estimated to have caused more than 5.3 million deaths worldwide in 2008 (HSE 2012:VOL 1 Chapter 2 Physical Activity in Adults).

In the UK, the incidence of non-communicable disease which can be attributed to physical inactivity includes:

- 10.5% of coronary heart disease cases
- 18.75 of colon cancer cases
- 17.9% of breast cancer cases
- 13.0% of type 2 diabetes cases[3]

It has been estimated that inactivity has caused 3% of disability adjusted years of life lost in 2002 with a direct cost to the NHS of £1.1 billion. Indirect costs to society bringing this estimated total cost to £8.2 billion. Inactivity is particularly important in some groups, and in 2011 it was estimated to account for at least 20% of the excess heart disease deaths seen in the south Asian community in Britain.

Physical inactivity contributes to cardiovascular disease, particularly ischaemic heart disease and stroke, cancer of the colon, and breast, psychological distress and depression and dementia as well as being a major cause of obesity and diabetes.

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[1] Department of Health (2009) Let's Get Moving- A new physical activity care pathway for the NHS Commissioning Guidance

[2] Department of Health (2009) Let's Get Moving- A new physical activity care pathway for the NHS Commissioning Guidance

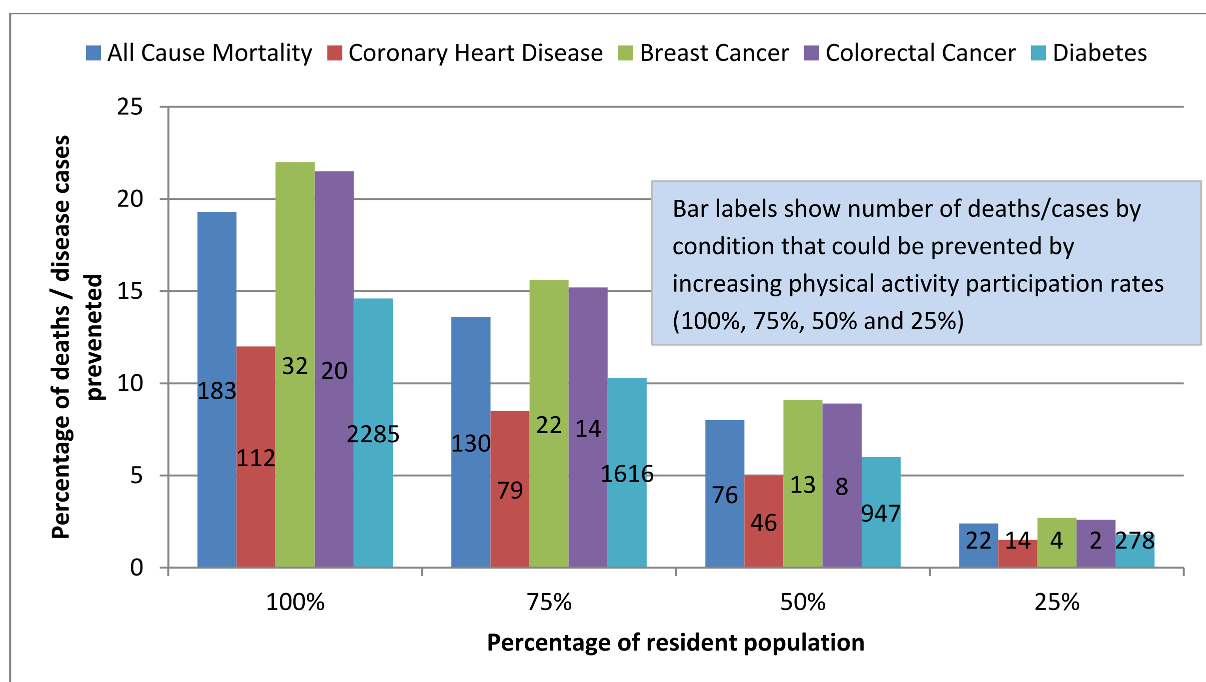
[3] Lee 1, Shiroma EJ, Lobello F, Puska P, Blair SN, Katzmark PT, Effect of physical inactivity on major non-communicable diseases worldwide. An analysis of burden of disease and life expectancy. The Lancet 2012; 380 (9838): 219-229

The health benefits of physical activity in older adults are even more pronounced, specifically on an older person's ability to maintain every day activities in daily living and an independent lifestyle.

There is a clear causal relationship between the amount of physical activity people do and all-cause mortality.

Impact of physical Activity

Figure 1: Estimated number of deaths (all-cause mortality) and disease cases that could be prevented if Ealing's resident population was to achieve recommended levels of physical activity, 2010/11



Source: Public Health England: Health Impact of Physical Inactivity

Cost Implications for Ealing

For just five conditions - post-menopausal breast cancer, lower gastrointestinal cancer, cerebrovascular disease, cardiovascular disease and type 2 diabetes, a study demonstrated an annual estimated cost to the NHS of between £1billion and £1.08 billion. Adding the indirect costs to the wider economy, such as working days lost to sickness and premature mortality, results in a total bill for physical inactivity that may be as high as £8.3 billion every year.[4]

[4] Department of Health (2012) Let's Get Moving, Commissioning Guidance: A physical care pathway

The National Institute of Clinical Excellence (NICE) in terms of return on investment established that a brief intervention for physical activity in primary care costs between £20 and £440 per quality- adjusted life year (QaLY) (when compared with no intervention) with net costs saved per QaLY gained of between £750 and £3,150[5].Cycling England meanwhile has estimated that a 20% increase in cycling by 2015 would save £107 million by reducing premature deaths, £52 million from lower NHS costs and £87 million due to fewer absences from work[6].

Example of impact of Physical Activity / Inactivity on MSK:

One example of the important role of Physical Activity can be seen in Musculoskeletal conditions. Like other long-term conditions, physical inactivity is a major avoidable risk factor. Our ageing population, rising obesity and reduced levels of physical activity will increase the prevalence of these conditions. Conditions such as arthritis and back pain are commonly perceived to be unavoidable, and too few people with these conditions are aware of the benefits of physical activity and maintaining healthy body weight to improve their symptoms. At every age, physical activity reduces the risk of developing musculoskeletal conditions, including osteoarthritis and osteoporosis. In later life,
remaining active is one of the best things anyone can do for their musculoskeletal health, helping to strengthen muscles, keep bones healthy, reduce pain and prolong the life of joints.

The pain and disability caused by these conditions can ruin quality of life, robbing people of their independence and impairing their ability to participate in family, social and working life.
Poor musculoskeletal health is a major barrier to workplace participation, through being less likely to be employed than people in good health, and more likely to retire early.
If employed, people with musculoskeletal conditions are more likely to need time off and have reduced household income compared to those who do not. This lost productivity has an impact on the national economy, as well as affecting the state through lost revenue from taxation and increased need for state disability and low-income benefits. Each year in the UK, around 7.5 million working days are lost because of musculoskeletal conditions, second only to mental health problems. The costs of this, along with other indirect costs, are estimated at £14.8 billion for osteoarthritis and rheumatoid arthritis with up to a further £10 billion of indirect costs attributable to back pain.

Policy guidance

In 2011, the four Chief Medical Officers (CMOs) across the UK Countries produced new guidance on physical activity. The new guidelines entitled 'Start Active, Stay Active' (Department of Health, 2011) focus on achieving health gains through a life

[5] Department of Health (2012) Let's Get Moving, Commissioning Guidance: A physical care pathway
[6] Moore SC,Patel AV,Matthews CE, Berrington de Gonzalez A, Park Y et al (2012) LEISURE TIME PhysICAL Activity OF Moderate TO Vigorous Intensity and Mortality : A large pooled cohort analysis. PLOS Med 9 (11): e10.1371/Journal Premed 1001335

course approach to physical activity and include new recommendations for older adults:

Physical Activity for Adults **(19–64 years)**

»» Adults should aim to be active daily, and build up to 150 minutes moderate intensity physical
activity per week
»» Exercise daily in bouts of at least 10 minutes
»» Alternatively, comparable benefits can be achieved through 75 minutes of vigorous intensity
activity spread across the week or a combination of moderate and vigorous intensity activity.
»» Do muscle strengthening activities on at least two days a week
»» All adults should spend less time being sedentary

In addition, **Physical activity for the over 65s should also include:**
»» Practise balance and co-ordination at least two days a week

NICE had produced a wide range of guidance on what is known to impact on physical activity levels and on effective interventions which is adhered to locally when designing interventions.

National and local level of need

Physical activity levels vary according to income, gender, age, ethnicity, socioeconomic status and disability. People tend to be less physically active as they get older, and levels of physical activity are generally lower for women than men. Physical activity levels are also lower among certain ethnic minority groups amongst people from lower socioeconomic groups and people with disabilities (Department of Health 2011)

The Health Survey for England showed that 67% of men and 55% of women meet new government recommendations for levels of physical activity (minimum of 150 minutes of moderate intensity per week in bouts of at least ten minutes), but there is regional variation across England.

The government recommends that adults decrease the amount of sedentary time, and the Health Survey for England[7] showed that on weekdays 31% of men and 29% of women spend six hours or more being sedentary, increasing to 40% of men and 35% of women on weekend days.

The National Travel Survey showed that average number of trips made walking has reduced in both men and women between 1995-97 and 2013.

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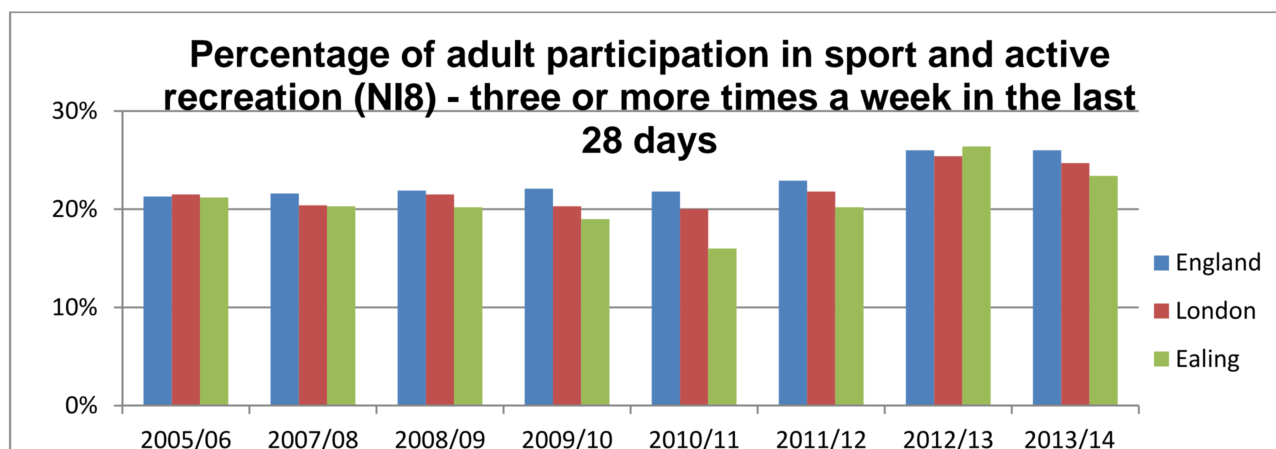
[7] Department of Health (2012) Health Profile Ealing. APHO

The Active People Survey provides information on adult participation in sports and active recreation. The table below shows the percentage of adults that participate in sport and active recreation for at least 30 minutes on at least 12 days out of the last 4 weeks (equivalent to 30 minutes on 3 or more days of the week).

Table 1: Adult participation in sport and active recreation (formerly known as NI8) – Percentage of adults participating in 30 minutes of activity on at least 12 days out of the last 28 days

	2005/06	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
England	21.3%	21.6%	21.9%	22.1%	21.8%	22.9%	26.0%	26.0%
London	21.5%	20.4%	21.5%	20.3%	20.0%	21.8%	25.4%	24.7%
Ealing	21.2%	20.3%	20.2%	19.0%	16.0%	20.2%	26.4%	23.4%

Figure 2: Percentage of adult participation in sport and active recreation 3 or more times a week



Source: Sport England, Active People Interactive Tool, 2014

Figures show that in the last year, participation in Ealing has decreased slightly, in contrast to some neighbouring west London boroughs showing a very slight increase (although the Ealing figure remains higher than all but one of our neighbouring boroughs).

Table 2: The proportion of respondents that participated in moderate intensity sport and active recreation for at least 30 minutes, at least 12 days in the last 4 weeks (equivalent to at least 3 times a week over the previous month) by gender

	2005/06	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Male	22.0%	25.6%	23.6%	24.8%	18.7%	21.6%	31.2%	28.5%
Female	20.3%	14.8%	16.7%	12.9%	13.3%	18.6%	21.7%	18.1%

Source: Sport England, Active People Interactive Tool, 2014

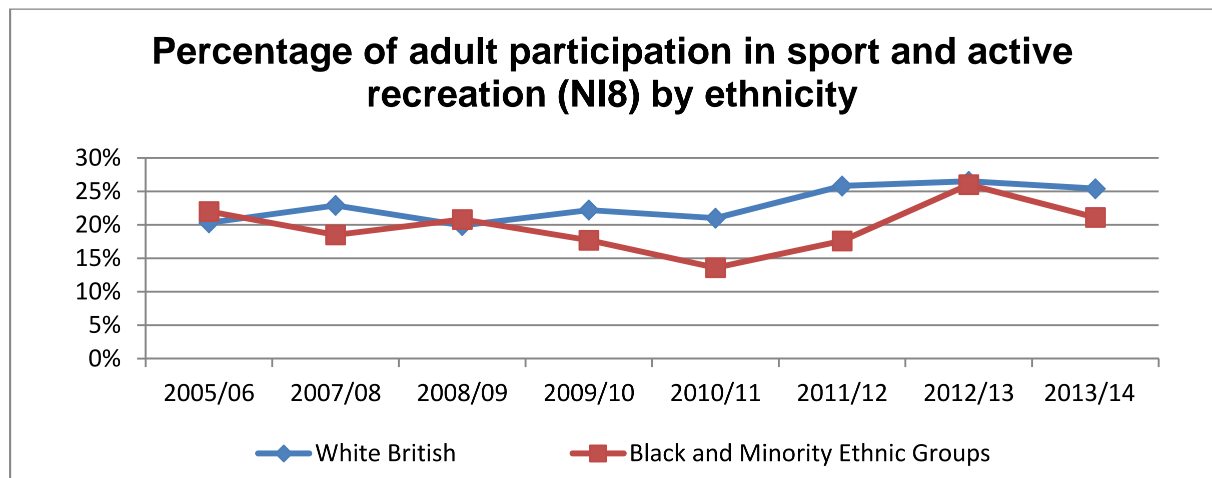
The table above shows a peak in participation data in 2012/13 for both males and females, which could be related to the Olympics legacy, with data for 2013/14 remaining high.

Table 3: The proportion of respondents that participated in sport and active recreation, at moderate intensity, for at least 30 minutes on at least 12 days in the last 4 weeks (equivalent to at least 3 times a week over the previous month) by ethnicity

	2005/06	**2007/08**	**2008/09**	**2009/10**	**2010/11**	**2011/12**	**2012/13**	**2013/14**
White British	20.3%	22.9%	19.9%	22.2%	21.0%	25.8%	26.5%	25.4%
BME	22.0%	18.5%	20.8%	17.7%	13.6%	17.6%	26.0%	21.1%

The table above shows a peak in participation data in 2012/13 for both White British and BME groups, which could be related to the Olympics legacy, with data for 2013/14 showing some decline.

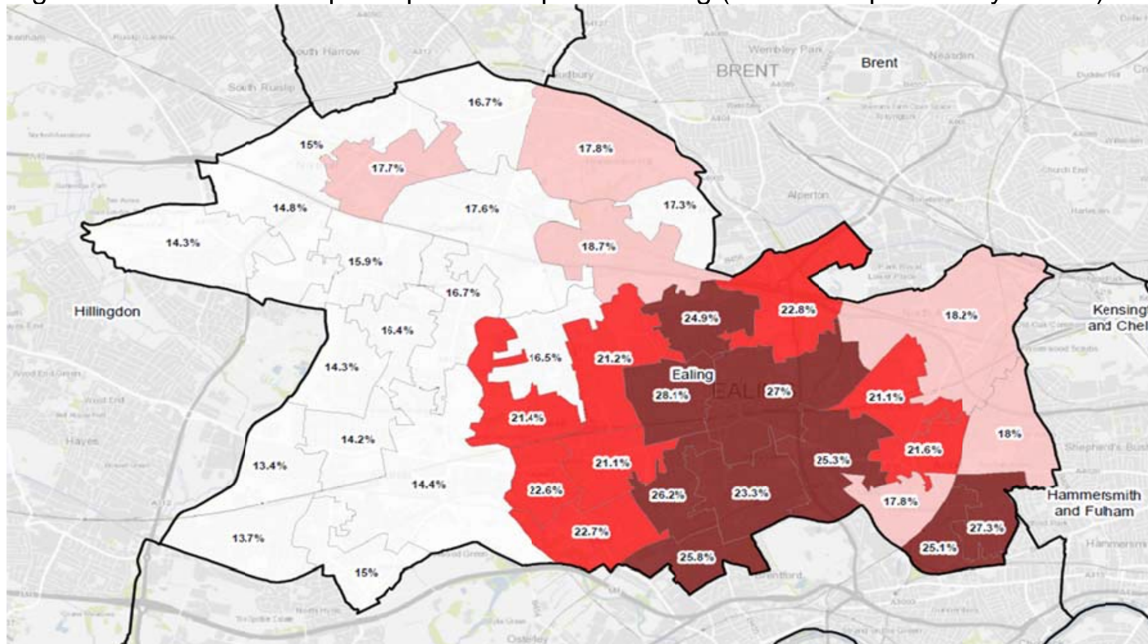
Figure 3: Percentage of adult participation in sport and active recreation by ethnicity



Source: Sport England, Active People Interactive Tool, 2014

The map below (Figure 4) illustrates the major differences in activity levels. The white areas highlight areas of low participation, moving through to dark red areas which highlight the areas where participation is rated as high. In Ealing, the lowest participation levels appear in the west of the borough in Southall, west Greenford and Northolt and the East Acton area. The highest levels of participation can be found in central Ealing, areas in south central and eastern areas of the borough.

Figure 4: Levels of adult participation in sport in Ealing (Active People surveys 3 & 4)



Legend

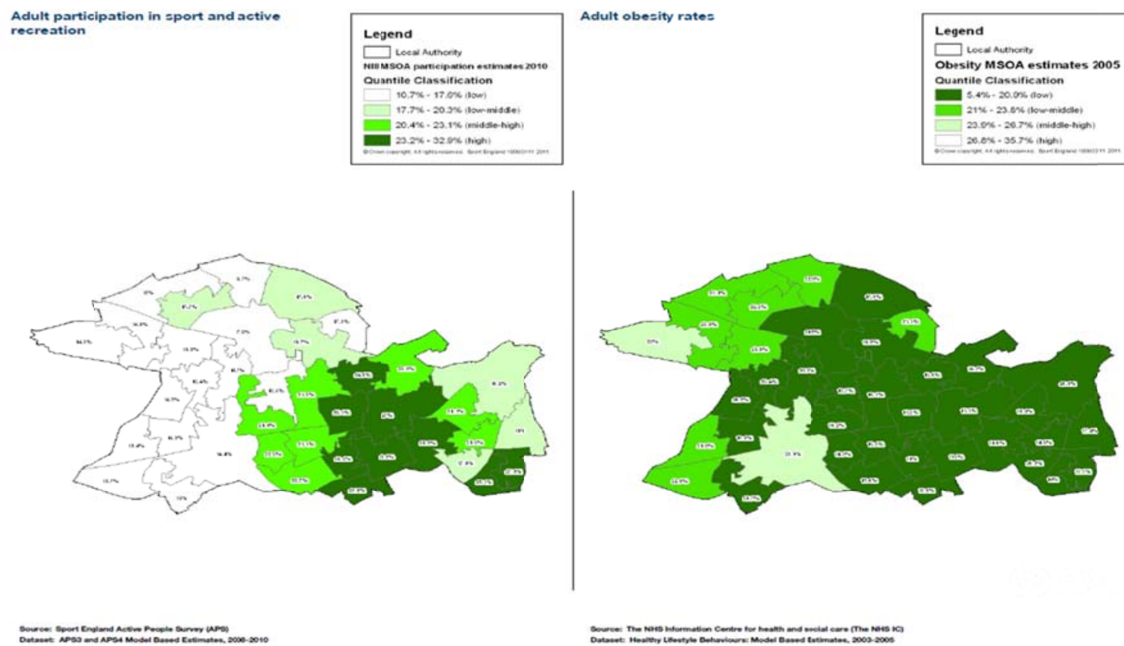
NI8 participation estimates 2008-10

Quantile classification*

- 10.7% - 17.6% (low)
- 17.7% - 20.3% (low-middle)
- 20.4% - 23.1% (middle-high)
- 23.2% - 32.9% (high)

Participation rates in active sport and recreation can be compared with obesity levels across Ealing. In general, areas where obesity levels are lowest shown in dark green on the right hand map correspond with areas where participation in sport and active recreation are highest, shown in dark green on the left hand map. Obesity rates are highest in areas of Southall and west Northolt, shown by pale green on the right hand map, which correspond to areas where participation rates are lowest, shown in white on the left hand map (Figure 5).

Figure 5: Participation rates in active sport and recreation compared with obesity levels



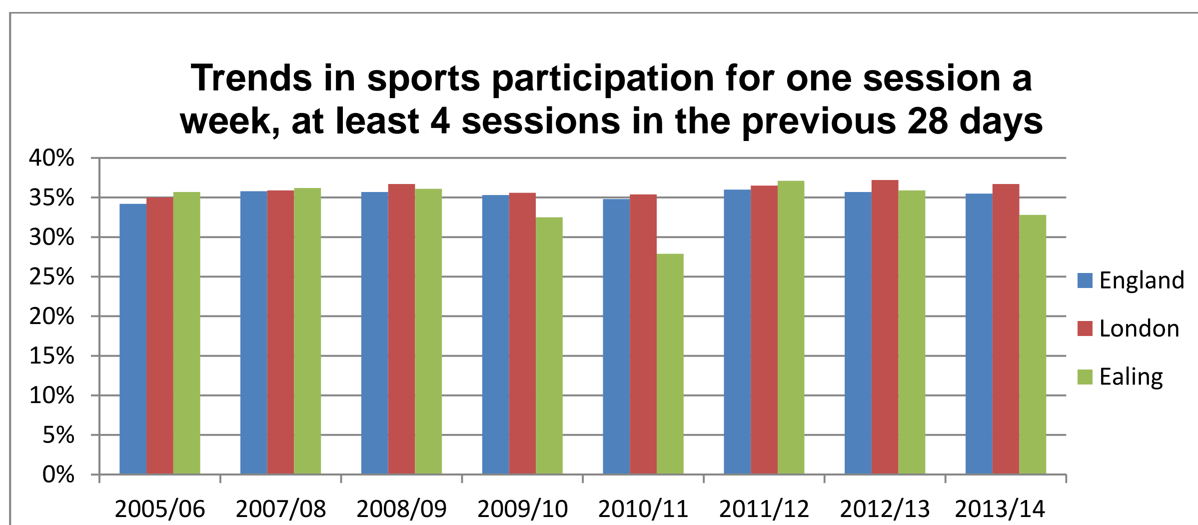
Participation in Sport

The table below shows the percentage of people participating in one session a week of Sport at a moderate intensity for at least 30 minutes (at least four sessions over the last 28 days), in Ealing in comparison to London and England.

Table 4: Trends in Active People Survey Results for 1 session a week (at least 4 sessions of at least moderate intensity for at least 30 minutes in the previous 28 days)

	2005/06	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
England	34.2%	35.8%	35.7%	35.3%	34.8%	36.0%	35.7%	35.5%
London	35.0%	35.9%	36.7%	35.6%	35.4%	36.5%	37.2%	36.7%
Ealing	35.7%	36.2%	36.1%	32.5%	27.9%	37.1%	35.9%	32.8%

Figure 6: Trends in sports participation for one session a week



Source: Sport England, Active People Interactive Tool, 2014

Impact on local population e.g. hospital admissions, A&E attendance, mortality

Physical inactivity places a significant economic burden on the NHS for the treatment of long- term conditions and associated acute events (such as heart attacks, strokes, falls and fractures), in addition, to the costs of social care arising from the loss of functional capacity. The total cost of physical inactivity has been estimated to be as high as £ 8.3 billion every year.[8] There is therefore very compelling economic and clinical evidence for the investment in the promotion of physical activity in primary care.

In terms of return on investment, for certain measures such as $V0_{2\ max}$ (a measure of aerobic fitness) blood pressure and cholesterol, the benefits can accrue in a matter of weeks or months. The same is true for specific conditions such as mild to moderate depression, low back pain and chronic obstructive pulmonary disease (COPD).

On average, an inactive person spends 38% more days in hospital than an active person, and has 5.5% more family doctor visits, 13% more specialist services and 12% more nurse visits than an active individual[8]

Physical inactivity places a significant economic burden on the NHS for the treatment of long term conditions and associated acute events (such as heart attacks, strokes,

[8] Department of Health (2009) Let's Get Moving – A new physical activity care pathway for the NHS Commissioning Guidance

falls, and fractures) in addition to the costs of social care arising from the loss of functional capacity.

There are also clear and significant health inequalities in relation to the prevalence of physical inactivity according to income, gender, age, ethnicity and disability.

Current Interventions in Ealing

Ongoing interventions include:

- A **discount card for leisure activities** (known as the Leisure Pass), giving holders discounts of up to 50% for adults and 33% for young people on leisure activities in the borough.
- **The Ealing Health Walks Programme** offering 13 weekly health walks including evening and weekends, and the programme changes on a quarterly basis. The walks are rated for a range of difficulty and are targeted giving people who are sedentary the opportunity to get more active in a social setting.
- The **Dormers Wells Trust** provides a rolling programme of physical activity sessions for adults over 16. Low cost sessions are provided to increase physical activity levels in a community environment. Typical sessions available includes Keep fit; yoga; dance 4 health; Zumba; Bhangra; gentle stretch and flexibility sessions.
- **NHS Health Checks in Ealing** includes the completion of the GP Physical Activity Questionnaire (GPPAQ), with the appropriate score for the patient recorded. All patients scoring less than 'Active' are offered a brief intervention supporting behaviour change to increase physical activity.
- The **Staying Active Programme** for older adults provides the opportunity for older adults to meet new friends whilst keeping fit and active, through over 30 weekly sessions at venues across Ealing aimed at encouraging older adults to be more active. Activities include Aqua Aerobics, Keep Fit, Indoor Bowls, Outdoor Bowls, Yoga, Table Tennis, Slimnastics, Pilates, Swimming Lessons and Supervised Gym sessions.
- **The Ealing Healthy Lifestyles 12 Week Programme** is a free health improvement programme, to help people to follow a healthier lifestyle and to reduce their risk of developing a number of health conditions. The programme is open to anyone aged between 16 and 74 registered with an Ealing GP or an Ealing resident, with a Body Mass Index (BMI) greater than 25 (greater than 23 for South Asian ethnicities).
- The **Get up and Go programme** is aimed at older adults at risk of falling, Public Health pilot project.
- There are a range of **Active Travel Projects** within the Healthy Borough programme including Active Travel Routes (Healthy Environments), Active Travel Plans (Healthy Organisations) and Active Travel in the Community

(Healthy Communities). Each of these strands is important in delivering overall increases in walking and cycling amongst families and children.

- The current **Direct Support for Cycling** includes road cycle training, maintenance classes, bike buddying, etc. It helps people to overcome barriers such as the lack of ability to achieve correct positioning on the road, awareness of basic rights and responsibilities, and to locate and use local bike shops.
- Ealing Council has a number of sports legacy projects in progress, some have received funding from grant sources directly linked to London 2012 Games, including Play Sport London **– Mayors Legacy Fund and the Sport England** Inspired Facilities Fund. Projects are spread throughout Ealing, ensuring that all communities are able to benefit from enhanced facilities.

Schemes and projects delivered by London Borough of Ealing - Active Ealing Team

- Sportivate: Aimed at getting semi sporty young people aged 11 – 25 years more active, 7yrs (until May 2017)
- On Your Marks: Aimed at raising activity levels of sedentary disabled people, for 3 years (until March 2016)
- Try It Do It: Aimed at raising activity levels of people living in Ealing's most deprived wards, over 3 years (until May 2017)
- Satellite clubs: Aimed at increasing opportunities for 11-25 year olds to participate in community sport and reduce the drop off in sports participation. (until 2016)

Delivered by Active Ealing's leisure partner Everyone Active

- Everyone Active Exercise on Referral scheme delivered in partnership with Ealing Council aimed at people with, or at risk of developing health problems

- Who is involved?

A range of individuals and partners across the borough through the following strategies, groups and action plans listed which include the Local Authority, the local voluntary sector, and a wide range of partners that work to implement the following strategies locally:

- **Ealing Healthy Weight, Healthy Lives Strategy (20012- 2016)**[9] provides the strategic oversight for commissioning and partnership working on obesity, physical activity and health across Ealing.
- **Ealing Local Implementation Plan (June 2011**)[10] this is a statutory document prepared by each borough to implement the Mayor of London's Transport Strategy (MTS)

[9] Ealing Healthy Weight, Healthy Lives Strategy (2012-2016)

[10] Ealing Local Implementation Plan: LIP2 (2010)

- **Ealing Sports Facility Strategy 2012 – 21**[11]: covers indoor and outdoor sports facility provision across the borough and sets out a ten year plan to meet both the Council and local people's needs in relation to Ealing's sports facilities.
- **Ealing Sport and Physical Activity Strategy 2013 – 18**[12] aims to improve the quality of life for people living, learning or working in Ealing through increasing opportunities for all abilities in both informal and formal sport and physical activity in local settings across the borough. The strategy forms a key evidence base supporting the Council's emerging Health and Wellbeing Strategy and Joint Strategic Needs Assessment for Physical Activity.

Who are the beneficiaries?

Some programmes are open to all, while others target specific groups, but the overall aim is to allow everybody across the borough access to physical activity opportunities.

What was the spend for 2013/14 and what is the current budget?

It is difficult to obtain total spend for the 2013/14 period as it cuts across different departments and some are 3 year projects, but a rough estimate would be a minimum of £750,000. While the budget for this current financial year has remained roughly the same.

Identified needs and intervention gaps

The following have been identified as key priority areas in the Ealing Sport and Physical Activity Strategy action plan[13]:

- Focus on adult service provision and participation, specifically amongst older people and those managing long term conditions and those with elevated CVD risk factors
- Focus on trying to engage people who are sedentary to become more active
- Undertake more work with employers including Ealing Council to encourage active travel to work and participation in activity
- Joint working with a wide range of partners to enable local implementation of the government's Change4life movement; which primarily focuses on eating well and moving more for children and their families, with the inclusion of messages and campaigns for other targeted/ specific groups
- Work to improve the information provided on local facilities, parks, cycle and walking routes.
- Increase training opportunities offered and the understanding of how to integrate promotion of active living and physical activity across a range of

[11] Ealing Leisure and Sports Facility Strategy (2011 – 2016)
[12] Ealing Sport and Physical Activity Strategy (2013-2018)
[13] London Borough of Ealing Sport & Physical Activity Strategy 2013-2018

settings (e.g. public health, primary care, transport, the environment, education, childcare and social care).

- Support the Local Authority Transport Team to realise related transport plan proposals on measures to increase cycling and walking levels within the borough
- Create improved access to physical activity opportunities by ensuring that gaps in provision are identified and duplication prevented.
- Effective multi-agency working to maximise the effectiveness of initiatives that seek to get ‘more people, more active, more often’ by linking with other strategic plans to adopt a more holistic approach to health promotion.

Recommendations for Commissioners

What should be done to effectively address identified needs/gaps?

There is already a great deal of work underway and in order to ensure this work is most effective the following should be undertaken:

1. Focus on mapping and reviewing adult service provision and participation, specifically amongst older people and those managing long term conditions and those with elevated CVD risk factors.

2. Focus on trying to engage with those who are sedentary to become more active through undertaking targeted work in the borough.

3. Increase training opportunities offered and the understanding of how to integrate promotion of active living and physical activity across a range of settings (e.g. public health, primary care, transport, the environment, education, childcare and social care).

4. Create improved access to physical activity opportunities by ensuring that gaps in provision are identified and duplication prevented.

5. Effective multi-agency working to maximise the effectiveness of initiatives that seek to get ‘more people, more active, more often’ by linking with other strategic plans to adopt a more holistic approach to health promotion and public health.