



Physical activity: a needs assessment for Hammersmith and Fulham, Kensington and Chelsea, and Westminster

May 2014

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Acknowledgements

The authors would like to thank the Tri-borough Physical Activity Steering Group for their contributions to this report and developing the recommendations. We would particularly like to thank Mary Russell, Andy Durrant, Ruth Barber and Siobhan Carroll.

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1. Introduction

This report describes the levels of participation in physical activity across the Tri-borough area and examines:

- How physical activity is defined
- The health and wellbeing benefits of physical activity
- The impact and cost of physical inactivity and sedentary behaviour
- The recommended levels and types of physical activity
- Which interventions and strategies work to improve participation
- The barriers that prevent people from participation
- Beliefs and attitudes towards physical activity

1.1 Purpose of the report

This Joint Strategic Needs Assessment (JSNA) for physical activity was designed to inform the promotion of physical activity into policies and strategies in the Tri-borough area (Hammersmith and Fulham, Kensington and Chelsea, and Westminster) and to guide local implementation of the Government programme 'Let's Get Moving- the Physical Activity Care Pathway'.

1.2 Methodology

The JSNA consisted of a review of national and international literature and an analysis of data.

1.2.1 Literature review

The purpose of the literature review was to undertake a rapid review of the best available literature to answer the following specific questions:

- Is there any evidence that certain types of activities are more effective in achieving good outcomes for particular population groups, specifically:
 - for different age groups
 - men or women
 - BME groups

- people with mental illness
- people with a long term condition - specifically cancer, diabetes, and cardiovascular disease
- Which interventions are most effective in promoting and improving the uptake of physical activity?
- What are the barriers to participation in physical activity?
- Is there any research examining people's beliefs and understanding of physical activity?

A literature search was conducted in December 2012 on the following healthcare databases - Medline, HMIC, the Cochrane Library, and Eppi-Center. In addition, relevant NICE guidance was reviewed and the following key websites were searched: NHS Evidence, NICE, Department of Health, and the World Health Organisation. Documents submitted by the members of the Westminster Physical Activity Steering Group were also considered.

Due to the volume of research available in this field the literature review was limited to include only national guidance and recommendations, review-level evidence and evidence summaries published in the last 5 years (2007-). Only literature published in English was included.

1.2.2 Data analysis

The analysis examines local participation based on findings from the Active People Survey and studies the health impact of physical inactivity based on the HIPI toolkit from Public Health England. Finally, potential hospital cost savings were modelled for the Tri-borough area if the local levels of participation were to increase.

The **Active People Survey** collects data related to physical activity levels at borough level in England. It continuously measures the number of people taking part in sport across the nation and in local communities. It is the largest survey of sport and activity ever carried out in Europe. This bespoke telephone questionnaire collected

data on frequency of participation in sport and active recreation during the previous 28 days.

The **Health Impact of Physical Inactivity (HIPI)** was used to model the number of new cases of diseases associated with physical inactivity which could be prevented across the Tri-borough area, based on different levels of participation in physical activity. The model identifies the number of cases which could be prevented among the resident population in the 40-79 age group. The diseases included in this model are:

- All cause mortality (mortality)
- Coronary Heart Disease (incidence of morbidity)
- Colorectal Cancer Disease (incidence of morbidity)
- Breast Cancer Disease (incidence of morbidity)
- Diabetes Disease (incidence of morbidity)

Local authority resident populations aged 40-79 (2010) are mid-year estimates provided by the Office for National Statistics (ONS).

Once the number of preventable cases were calculated, we used 2010/11 programme budgeting categories to estimate the cost reduction if current physical activity levels were increased to 50% and 100% in that same population group (i.e. local residents aged 40-79).

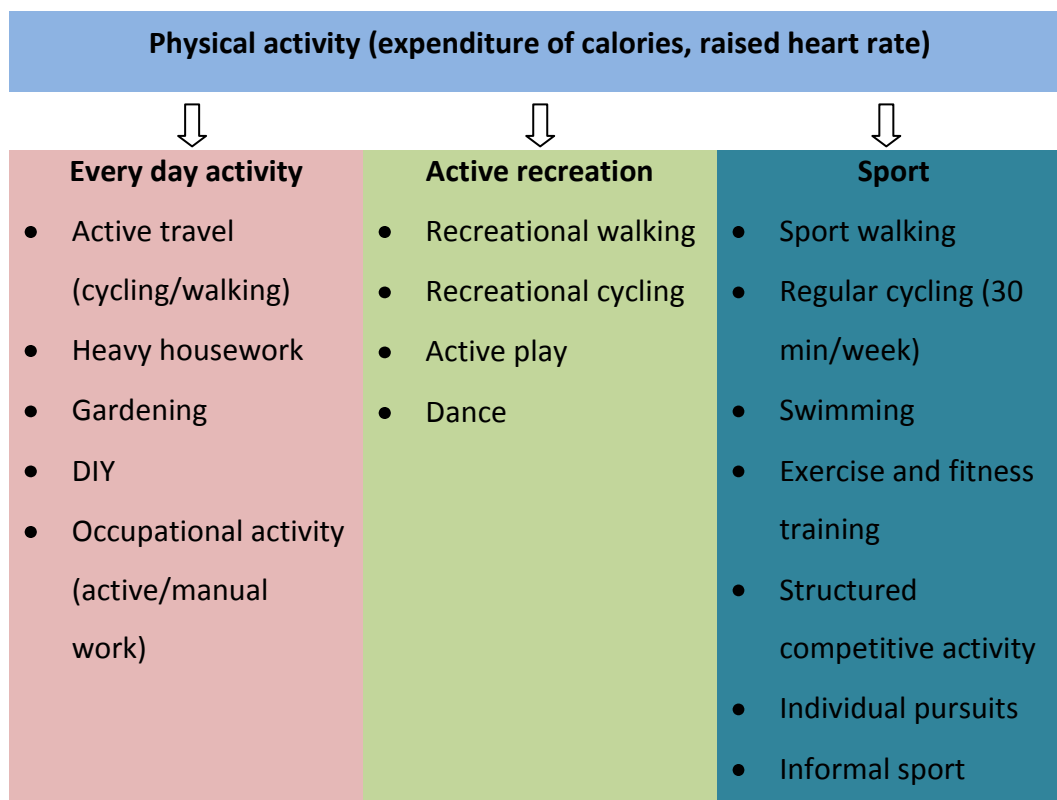
1.3 Definition of physical activity

The World Health Organisation defines physical activity as "any bodily movement produced by skeletal muscles that requires energy expenditure"¹.

The term "physical activity" not only refers to organised and competitive sport but importantly includes all forms of activity, such as everyday walking or cycling, active play, work-related activity, taking the stairs rather than the lift, working out in a gym,

¹ World Health Organization http://www.who.int/topics/physical_activity/en/ (Accessed 18 January 2013)

dancing, or gardening.² These are outlined in the diagram below adapted from the 2011 report “*Start Active, Stay Active: a report on physical activity from the four home countries' Chief Medical Officers*”.



² Department of Health. Start Active, Stay Active: a report on physical activity from the four home countries' Chief Medical Officers
<http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH128209> (Accessed 18 January 2013)

2. The health and wellbeing benefits of physical activity

The health and wellbeing benefits of physical activity are well established. Regular physical activity can reduce the risk of many chronic conditions including coronary heart disease (CHD), stroke, type 2 diabetes, cancer, obesity, mental health problems and musculoskeletal conditions. There is also evidence of a dose-response relationship which demonstrates that the more physical activity undertaken by an individual, the greater the health benefits (Department of Health, 2011).

Even small increases in physical activity are associated with protection against chronic diseases and an improved quality of life, leading to the assertion that any physical activity is better than none in terms of realising health benefits. Further benefits of physical activity include cost savings for health and social care services, improved productivity in the workplace, reduced congestion and pollution through active travel, and healthy development of children and young people (Department of Health, 2011). Emerging evidence also suggests a positive relationship between physical activity and the academic performance of children in school, with an improvement in cognitive skills, mood and behaviour.

Some of the benefits of physical activity for specific health conditions are highlighted in the table below (adapted from the Department of Health guidelines³)

Table 1: Health benefits of physical activity

Condition	Benefit
<i>Cardio-respiratory health</i>	There is a 20% to 35% lower risk of cardiovascular disease, coronary heart disease (CHD) and stroke.
<i>Diabetes</i>	There is a 30% to 40% lower risk of metabolic syndrome and type 2 diabetes in at least moderately active people compared with those who are sedentary.

³ Department of Health. Start Active, Stay Active: a report on physical activity from the four home countries' Chief Medical Officers
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_128209 (Accessed 18 January 2013)

<i>Cancer</i>	There is an approximately 30% lower risk of colon cancer and approximately 20% lower risk of breast cancer for adults participating in daily physical activity.
<i>Mental health</i>	<p>There is an approximately 20% to 30% lower risk for depression and dementia, for adults participating in daily physical activity.</p> <p>There is an approximately 20% to 30% lower risk for distress for adults participating in daily physical activity.</p>

There is increasingly strong evidence that physical inactivity or sedentary behaviour is a key risk factor in the prevention and control of non-communicable diseases (NCDs), and is associated with all-cause mortality, CHD, type 2 diabetes, and some types of cancer (Lee et al., 2012; World Health Organization, 2007). A recent study published in the Lancet estimated that globally, physical inactivity causes 6-10% of all deaths from the major NCDs and 9% premature mortality. This equates to as many deaths as tobacco (Lee et al., 2012).

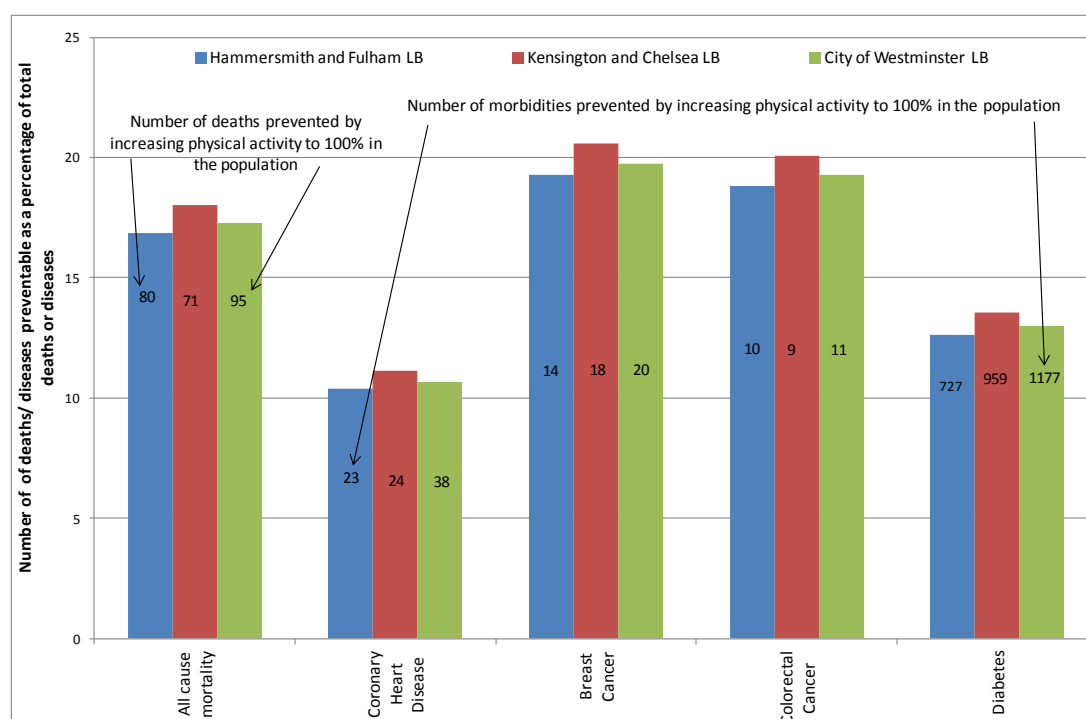
The Chief Medical Officer's guidelines recommend that adults should be active daily and achieve a total of 150 minutes of moderate intensity exercise in a week, in bouts lasting for at least 10 minutes. It is estimated that only 40% of men and 28% of women in England currently achieve the recommended physical activity guidelines (Department of Health, 2009, 2011). However, local variations exist in terms of level of physical activity participation and a number of factors are associated with these variations.

3. The health impact and cost of physical inactivity

3.1 Impact on health

Strong evidence shows that physical inactivity increases the risk of many adverse health conditions and shortens life expectancy. Because much of the world's population is inactive, this link presents a major public health issue. Figure 1 identifies the estimated number of deaths and new cases of diseases associated with physical inactivity which could be prevented across the three boroughs if the entire population were to meet the recommended levels of physical activity⁴

Figure 1: Estimated no. cases prevented if 100% of resident population achieved recommended levels of physical activity (2010/11)



As shown in Figure 1, an estimated 246 deaths could have been prevented across Tri-borough if all residents age over 16 achieved the recommended level of physical activity during 2010/11. In other words, nearly 17% of all deaths during 2010/11 could have been prevented. The major causes of these deaths are CHD, diabetes, breast cancer and colon cancer.

⁴ Health Impact of Physical Inactivity <http://www.apho.org.uk/resource/view.aspx?RID=123459> (date accessed 3 February 2014)

In addition, if all residents achieved the recommended levels of physical activity this would have prevented 85 new cases of CHD, 52 new cases of breast cancer, 30 new case of colorectal cancer, and 2862 new cases of diabetes.

Further analysis has shown that if 50% of the population achieved the recommended levels of physical activity 82 deaths could have been prevented during the same year. 29 new cases of CHD, 18 new cases of breast cancer, 10 new cases of colorectal cancer, and 961 new cases of diabetes could also have been prevented.

3.2 The cost of physical inactivity

Based upon the five conditions specifically linked to physical inactivity as described above (CHD, stroke, diabetes, colorectal and breast cancer), the estimated direct cost of physical inactivity to the NHS is £1.06 billion (Department of Health, 2011).

This is a conservative estimate and does not include a range of other health conditions potentially accountable to inactivity. On average an inactive person spends 38% more days in hospital than an active person, and has 5.5% more family physician visits, 13% more specialist services and 12% more nurse visits than an active individual (Sari, 2009)

Increasing the level of physical activity within the population is likely to have both a positive effect upon morbidity and mortality, and consequently substantial financial and efficiency benefits to the NHS. For example, the National Institute for Clinical Excellence (NICE) established that a brief intervention for physical activity in primary care costs between £20 and £440 per quality-adjusted life year (QALY) with net costs saved per QALY between £750 and £3,150 (National Institute for Health and Clinical Excellence, 2006).

It is estimated that physical inactivity costs the UK economy £1billion - £1.8 billion each year due to loss of productivity and sick days (Allender, Foster, Scarborough, & Rayner, 2007; Ossa & Hutton, 2002).

Figure 2 below describes the savings to primary and secondary care costs across the Tri-borough area if 100% of the resident population achieved the recommended levels of physical activity. The calculations are based on programme budgeting data and assume that health care cost savings are directly proportional to a reduction in mortality and morbidity.

Figure 2: Cost savings in primary and secondary care if 100% of resident population achieved recommended levels of physical activity (2010/11)

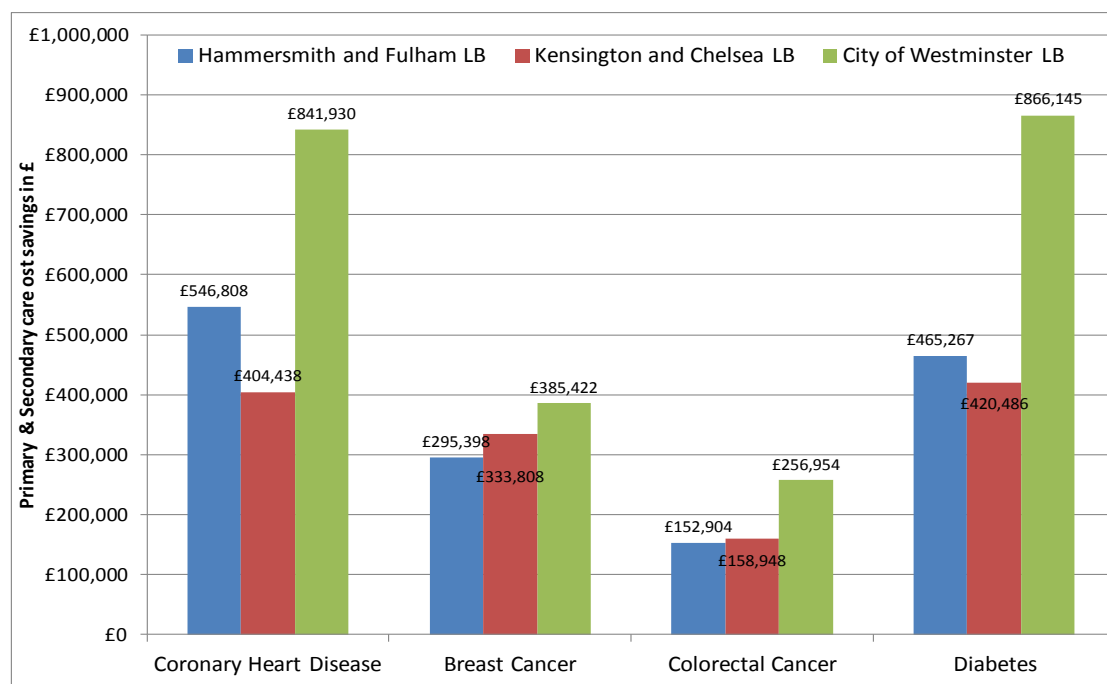


Figure 2 demonstrates that an increase to 100% physical activity participation in the resident population could save over £5 million. This is likely to be a conservative underestimate as it does not take into account other health conditions (e.g. mental health illness) which would be affected by an increase in physical activity levels, and only considers healthcare costs.

4. Physical activity participation in Tri-borough

Key messages from data analysis

- The percentage of people achieving recommended levels of physical activity is higher in the tri-borough compared with England and London.
- However, there are 'inequalities' in physical activity levels: BME groups, women, people with long term conditions and people living in the most deprived parts of the tri-borough have low participation rates in moderate level of physical activity.
- Health impact. An estimated 246 premature deaths and 2862 new cases of diabetes could have been prevented if all tri-borough residents were engaged in the recommended level of physical activity. 82 premature deaths and 961 new cases of diabetes could have been prevented if 50% of tri-borough residents were to be engaged to in the recommended level of physical activity.
- Health care cost savings: Over £5 million could have been saved in 2010/11 if all tri-borough people participated in the recommended levels of physical activity.

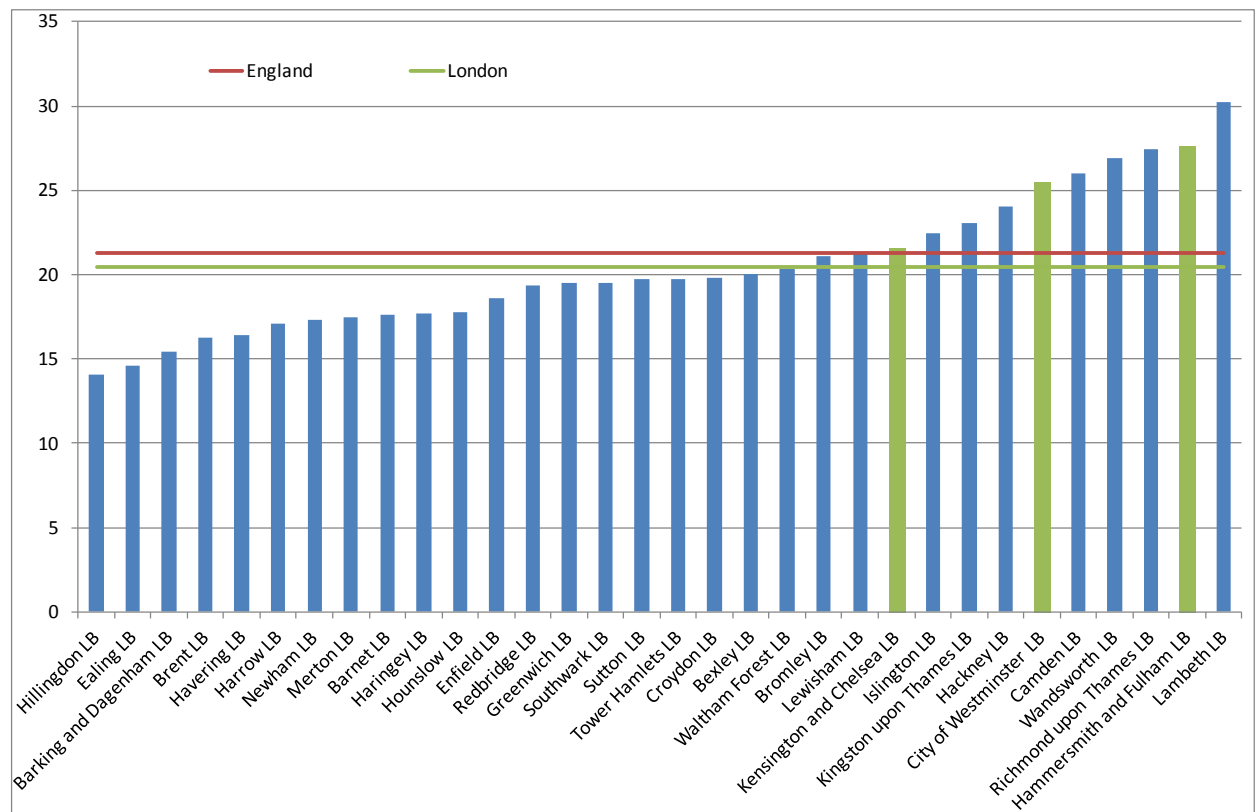
Data from the 2010/11 Active People Survey suggests that the amount of exercise participation among residents is similar to the previous four years of the survey. The survey found that approximately 19% of tri-borough residents participated in three sessions of 30 minutes of moderate intensity active recreation or sport per week, and roughly 58% participated in less than one session per week. Residents are more likely to participate in sport than is average for London and England (table 2).

The survey suggests that younger and working age adults state 'work commitments' as the biggest barrier to participating in sport. Middle-age and older people stated 'health, injury or disability' as the biggest barrier to participating in sport.

Table 2: Adults age 16 and over doing 30 minutes of moderate intensity sport

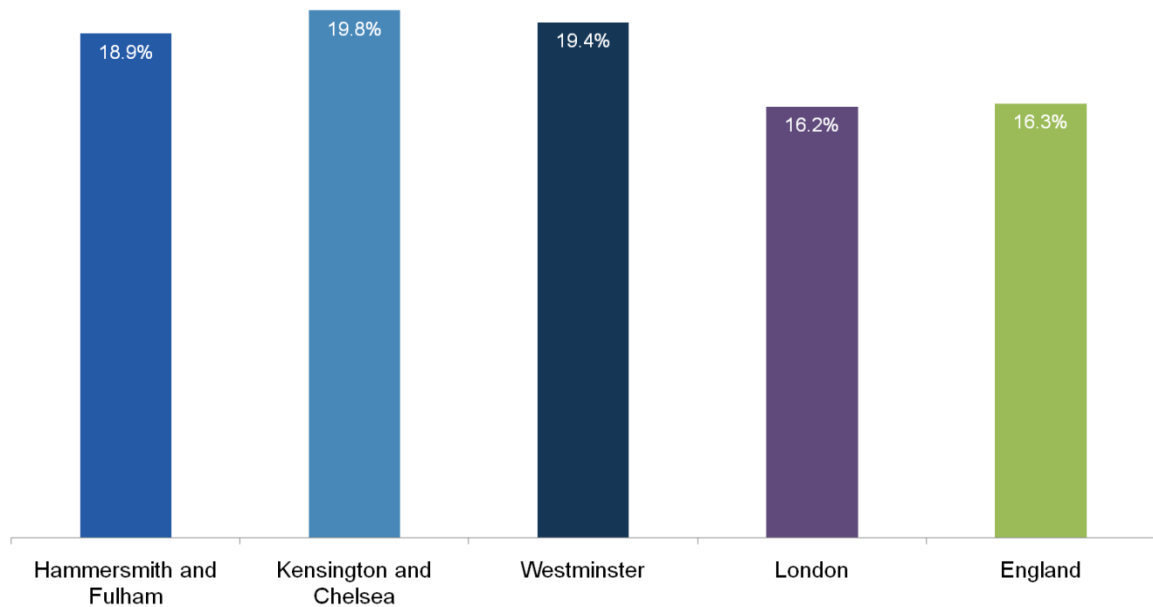
	Less than once per week	Once or twice per week	Three or more times per week
Hammersmith & Fulham	56%	25%	19%
Kensington & Chelsea	58%	22%	20%
Westminster	59%	22%	19%
Tri-borough	58%	23%	19%

Figure 3: Estimated percentage of respondents in each area who participate in the recommended levels of physical activity (aged 16 and over), 2010-2011



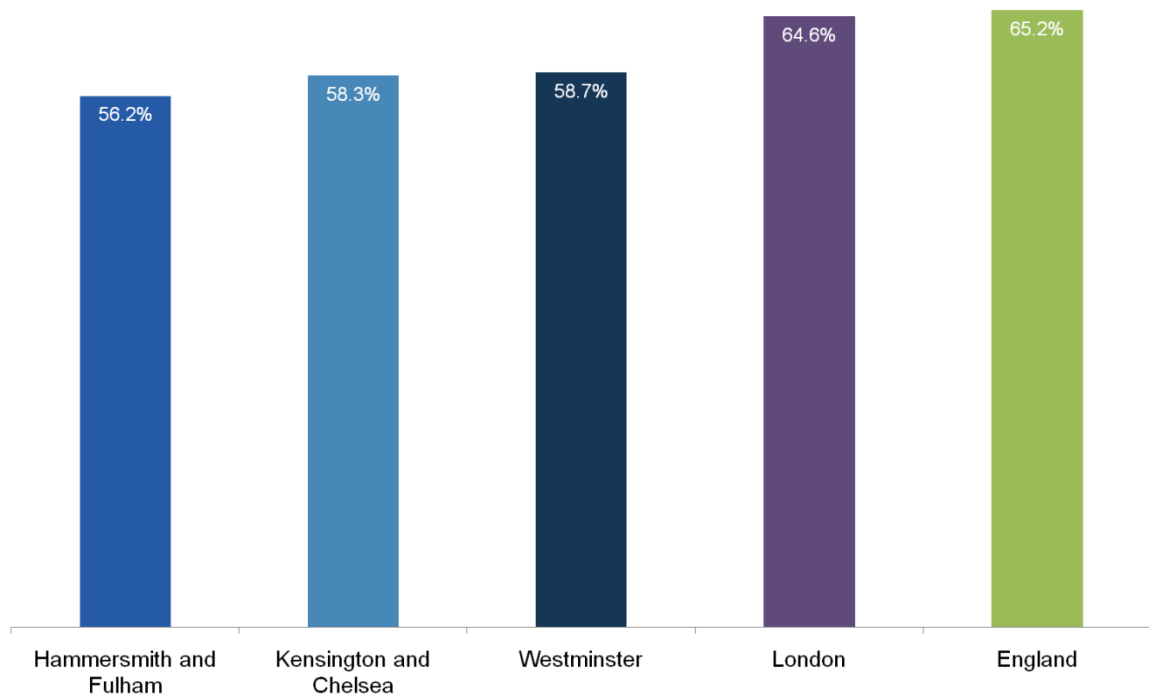
According to the survey results, 1 in 5 people in Kensington and Chelsea participated in the recommended level of physical activity during 2010-11, similar to the level of participation in England. In Hammersmith and Fulham and in Westminster, 1 in 4 people participated in the recommended level of physical activity (figure 3).

Figure 4: Percentage of adults aged 16 years or older who participate in 30 minutes of moderate intensity sport at least 3 times per week (2010/11)



Responses to the Active People Survey suggest that just under a fifth of tri-borough residents participate in 30 minutes of moderate intensity sport 3 times per week (figure 4). This is higher than the average for both London and England; however this may reflect the younger demographic profile of residents in Hammersmith and Fulham, Kensington and Chelsea, and Westminster.

Figure 5: Percentage of adults aged 16 years or older who participate in 30 minutes of moderate intensity sport less than once per week (2010/11)



Responses to the Active People Survey suggest that over half of tri-borough residents participate in 30 minutes of moderate intensity sport less than once per week (figure 5). This is lower than the average for both London and England; however this may reflect the younger demographic profile of residents in Hammersmith and Fulham, Kensington and Chelsea, and Westminster.

5. Activity types for specific population groups

Key messages

- Guidelines from the Department of Health and the World Health Organisation indicate which types of physical activity are appropriate for different age groups
- There is some evidence for which types of physical activity are beneficial to people with long term conditions – e.g. aerobic (swimming/walking/cycling) or balance (Tai Chi) for cancer
- However, evidence indicates that it is the volume of activity that is beneficial to health rather than the specific type of activity, and that any physical activity is better than none

The review identifies which types of physical activity are most effective for specific population groups, based on the best available evidence. The groups identified as of particular interest for this review are:

- Different age groups
- Men and women
- Black and Minority Ethnic (BME) groups
- People with a mental illness
- People with a long term condition, specifically cancer, diabetes, and coronary heart disease

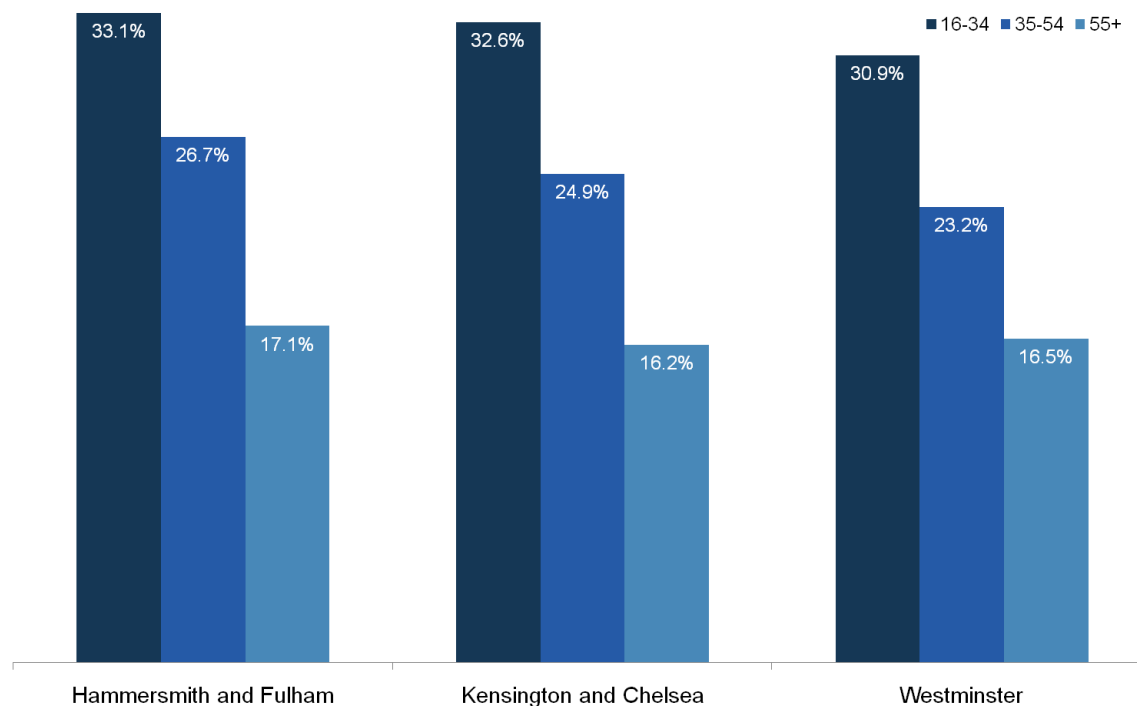
5.1 Age Groups

Physical activity decreases with age. Nationally the number of girls meeting the recommended levels of physical activity declines during childhood, from 35% in girls

aged 2 to 12% among those aged 14. For boys, a less consistent pattern is evident⁵. A significant decline in physical activity then occurs during the teenage years, particularly after the age of 16 (Department of Health, 2009, 2011).

During adulthood, physical activity participation declines further with age, particularly for women. Importantly, sedentary individuals over the age of 55 are at an even greater risk of ill health. Nationally, 70% of women aged 55 and over are not active enough (Department of Health, 2009, 2011).

Figure 6: Proportion of adults who participate in 30 minutes of moderate intensity sport or active recreation at least 3 times per week by age (2010/11)



Results from the Active People Survey show that younger working age adults are more likely to be physically active or play sport than middle-age and older people in the tri-borough. Roughly one third of 16-34 year olds in the tri-borough region

⁵ Health Survey for England 2008: Physical activity and fitness. NHS Health and Social Care Information Centre. <http://www.hscic.gov.uk/catalogue/PUB00206/obes-phys-acti-diet-eng-2010-rep.pdf> (accessed on the 14th February 2014)

participate in 30 minutes of moderate intensity sport or active recreation 3 times per week. For 35-54 year olds the figure drops to roughly 25% and for 55+ year olds the figure is just over 15% (figure 6).

Key guidance from the Department of Health and the World Health Organisation provides some evidence of which physical activity should be recommended for particular age groups (Department of Health, 2011; World Health Organization, 2010). The Department of Health recommendations are summarised in **Appendix A**. The WHO recommendations are very similar.

It is also worth noting that the Department of Health reports:

“the evidence suggests that it is the overall volume of activity that is key to beneficial effects of physical activity rather than specific types of activity or combinations of intensity or frequency” (Department of Health, 2011).

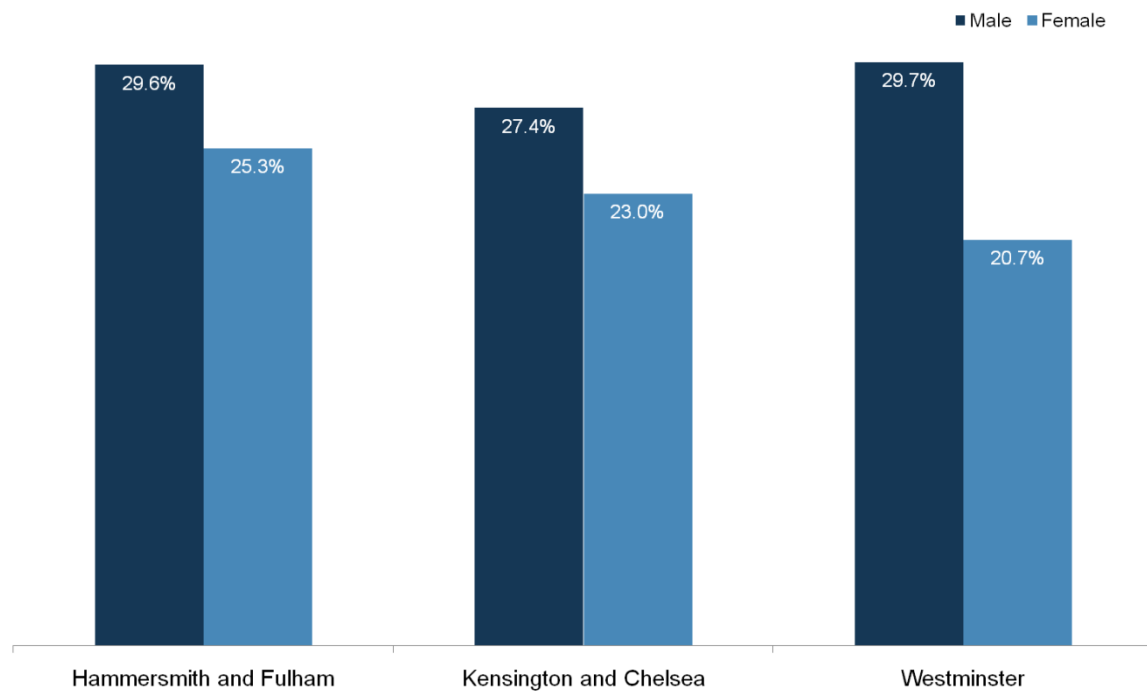
Even a small increase in physical activity levels will produce some benefits in terms of physical function and mental health.

For maximum cardiovascular and metabolic benefits older adults need to achieve similar amounts of activity as younger adults – probably best achieved through regular brisk walking, and perhaps combined with recreational activity such as dance, gardening, swimming, cycling, moderate intensity sport or physical activity classes for older adults.

5.2 Gender

Nationally, women are at a greater risk of physical inactivity compared to men; only 28% of women meet the recommended guidelines, compared to 40% of men (Department of Health, 2009, 2011). Girls are also at a greater risk of inactivity; in 2008, a higher proportion of boys (32%) compared to girls (24%) met the government’s recommendations for physical activity.

Figure 7: Proportion of adults aged 16 years or older who participate in 30 minutes of moderate intensity sport or active recreation at least 3 times per week by gender (2010/11)



Results from the Active People Survey show that men are more likely to be physically active or play sport than women in the tri-borough. Just under a third of men resident in the tri-borough area participate in 30 minutes of moderate intensity sport or active recreation 3 times per week. Amongst women the rate is just under one in four (figure 7).

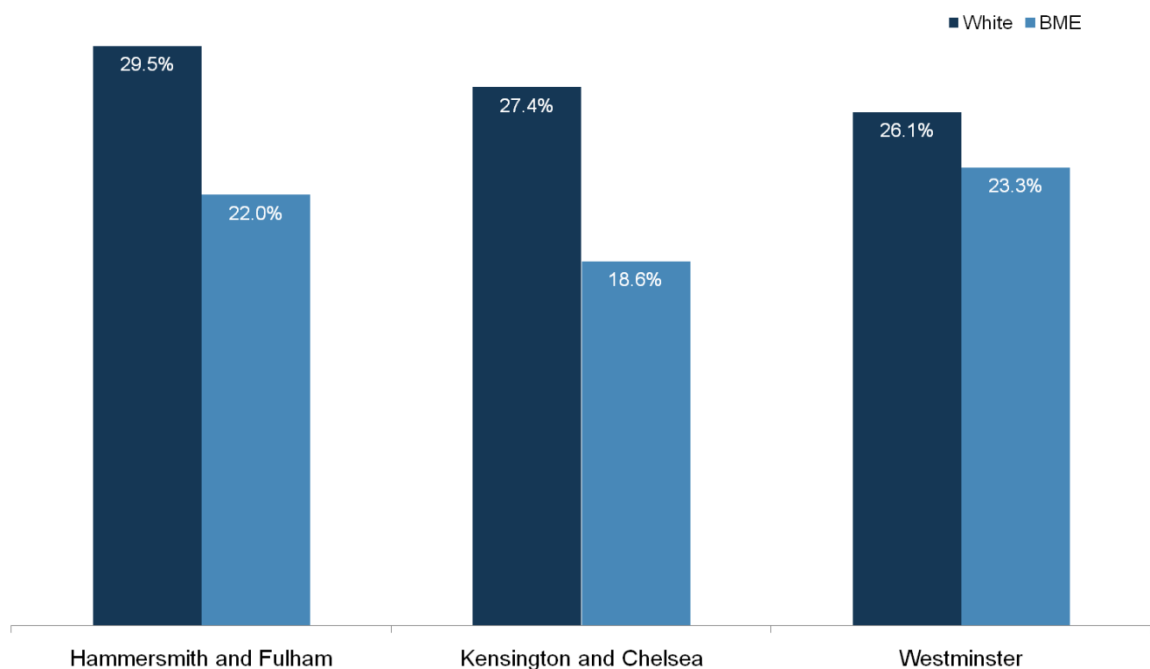
No evidence was identified which recommended specific types of activities for men or women.

5.3 BME Groups

Minority ethnic groups are at a high risk of physical inactivity as, nationally, all minority ethnic groups have lower rates of physical activity participation and do not

achieve the recommended levels of physical activity (Department of Health, 2011). This is most pronounced for Bangladeshi and Pakistani women, with only 11% of Bangladeshi and 14% of Pakistani women reportedly undertaking the recommended amounts of physical activity compared to 25% in the general population (Sproston & Mindell, 2004; Townsend et al., 2012).

Figure 8: Proportion of adults aged 16 years or older who participate in 30 minutes of moderate intensity sport or active recreation at least 3 times per week by ethnicity (2010/11)



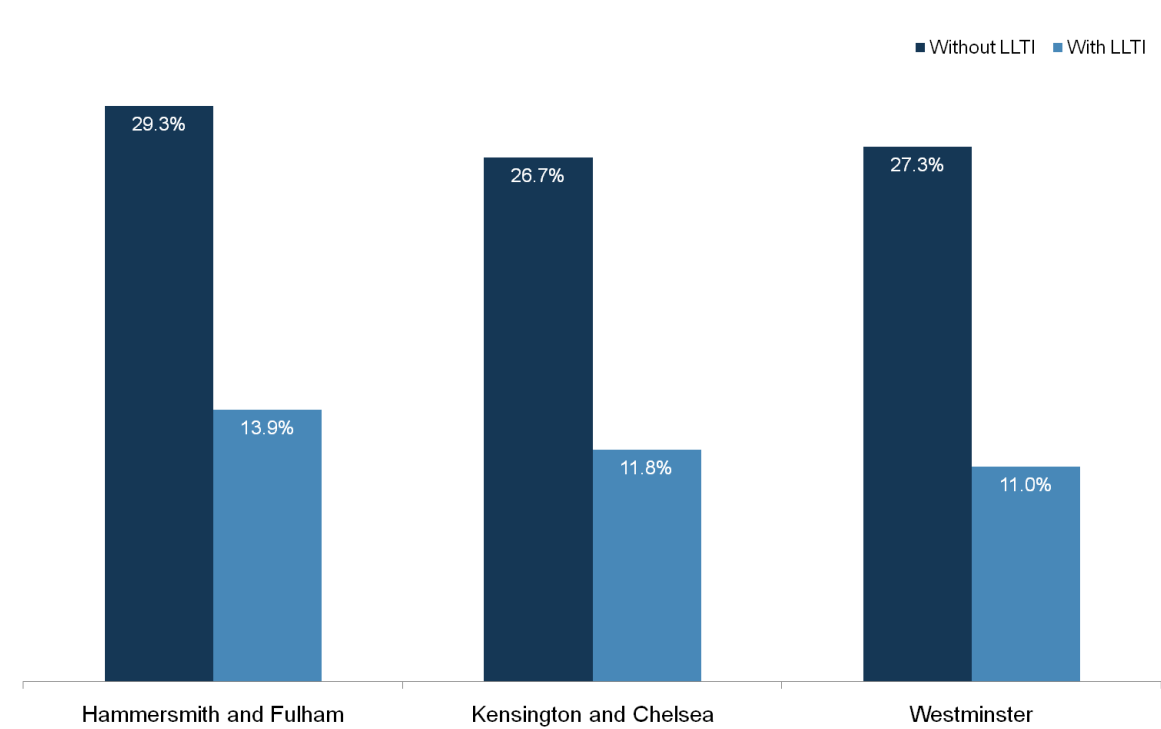
Results from the Active People Survey show that adults from a white ethnicity are more likely to be physically active or play sport than adults from a Black, Minority or Other Ethnic (BME) group in the tri-borough. Just over a quarter of white residents in the tri-borough area participates in 30 minutes of moderate intensity sport or active recreation 3 times per week. Amongst BME residents the figure is approximately one fifth (figure 8).

No evidence was identified which recommended specific types of activities for BME groups.

5.4 People with a Mental Illness or Long Term Condition

Physical activity is widely recognized as a means for the primary prevention of chronic diseases as well as in patients' treatment and rehabilitation. Moreover, activity has beneficial effects on an individual's health and well-being. Despite the benefits of regular physical activity, the percentage of physically inactive adults is high.

Figure 9: Proportion of adults aged 16 years or older who participate in 30 minutes of moderate intensity sport or active recreation at least 3 times per week by Limiting Long Term Illness (2010/11)



Results from the Active People Survey show that people without a limiting long term illness (LLTI) are considerably more likely to be physically active or play sport than adults with an LLTI in the tri-borough area. Just over a quarter of residents without an LLTI living in the tri-borough area participates in 30 minutes of moderate intensity

sport or active recreation 3 times per week. For residents with an LLTI the rate drops to just over one in ten (figure 9).

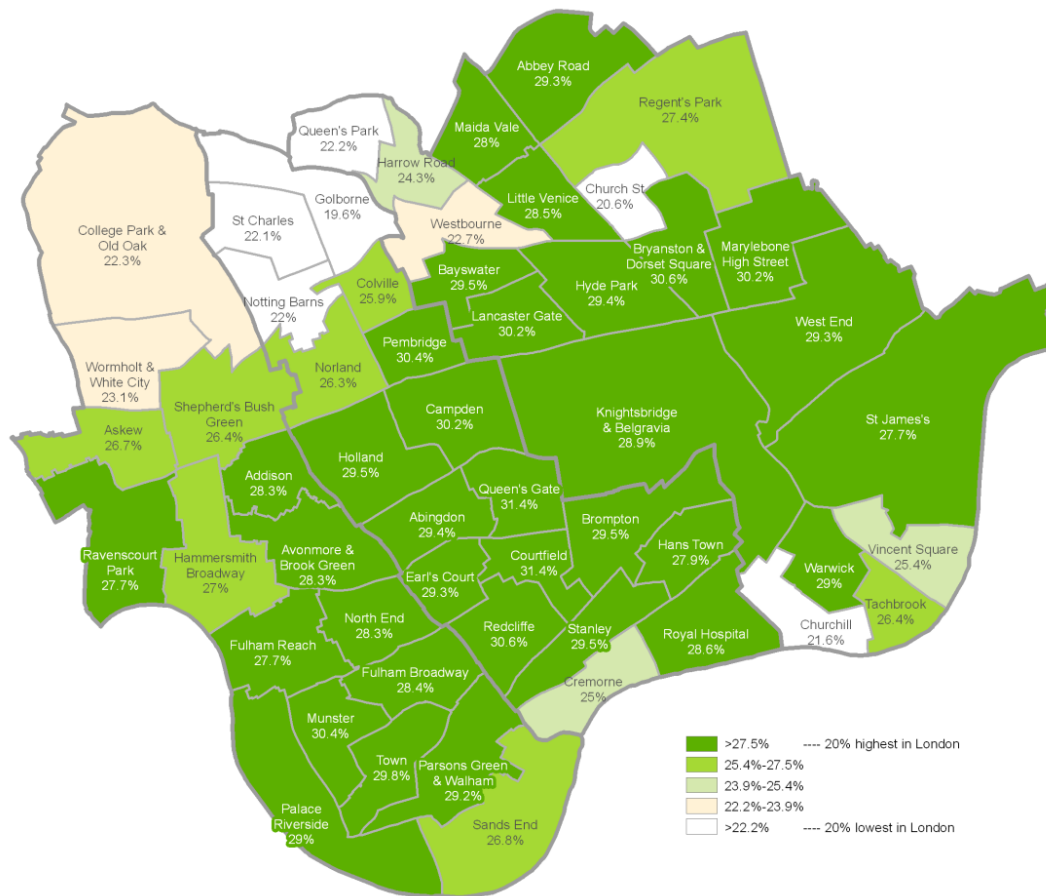
Intelligent Health and NHS London (Intelligent Health, 2012) have produced guidance for GPs in terms of physical activity for patients with a long term condition. Recommendations relevant to the specific conditions identified in the scope of this review - cancer, cardiovascular disease, diabetes, and depression – are summarised in **Appendix B**.

5.5 Socioeconomic status

Furthermore, individuals from the lowest income quintiles are less likely to be physically active compared to individuals from higher income quintiles; 42-45% of men from the highest 3 income quintiles meet the recommended physical activity guidelines compared to 35% of men from the lowest quintile. Similar patterns are seen for women⁶.

⁶ Health Survey for England 2006: Volume 1. Cardiovascular disease and risk factors in adults. <http://www.hscic.gov.uk/catalogue/PUB01213/heal-surv-cvd-risk-obes-ad-ch-eng-2006-rep-v1.pdf> (accessed on the 14th Feb 2014)

Figure 10: Ward estimates of percentage of adults aged 16 years or older who participate in 30 minutes of moderate intensity sport or active recreation at least 3 times per week (2010/11)



Estimates from the 5th Active People Survey suggest the Church Street, Queens Park, North Kensington and White City areas have some of the lowest levels of participation in sport and active recreation in London (figure 10).

In contrast, the more affluent areas of the tri-borough region are likely to be some of the most physical active in London and England.

6. Interventions to promote participation in physical activity

Key messages

- NICE recommend a number of measures, including:
 - brief advice in primary care
 - exercise referral schemes that are part of a research study
 - working with organisations and communities to promote behaviour change
 - promoting built and natural environments that encourage physical activity
 - promoting activity in the workplace and for children and young people
 - encouraging walking and cycling for travel and recreation
- There is good evidence that school-based interventions are effective in increasing duration of physical activity but not in increasing levels of physical activity in leisure time. Multi-component school based strategies are the most effective and should encompass physical education, classroom activities, after-school sport, active transport, and a family/home component.
- Behavioural change techniques and approaches can be effective
- There is inconsistent evidence for organisational travel plans. One Cochrane review found insufficient evidence while a more recent review in the Lancet recommends active travel policy and practices.
- Similarly, for community wide interventions one Cochrane review found inconsistent evidence while a review in the Lancet recommends informational approaches of community wide and mass media campaigns
- Social support is recommended within communities and worksites
- There is an absence of high quality evidence to support interventions designed and delivered by sporting organisations

There is a considerable knowledge base for interventions to promote physical activity. For the purposes of this review only national and international guidance,

reviews of reviews, and Cochrane systematic reviews were considered in order to assess the best quality evidence.

6.1 UK and International Guidance

In the UK the National Institute for Health and Clinical Excellence (NICE) have produced public health guidance aimed at improving uptake of physical activity in a number of settings. The key recommendations from this guidance are listed in

Appendix C

In brief, NICE recommend a range of measures to promote and increase physical activity, including:

- Exercise referral schemes that are part of a properly designed and controlled research study to determine effectiveness (National Institute for Health and Clinical Excellence, 2006)
- The routine provision of brief advice on physical activity in primary care (National Institute for Health and Clinical Excellence, 2013)
- Developers and planners to consider the needs of people to be physically active, and priority is given to pedestrians, cyclists and people using other modes of active travel (National Institute for Health and Clinical Excellence, 2008a)
- A comprehensive network of routes for pedestrians, cyclists and other modes of active travel (National Institute for Health and Clinical Excellence, 2008a)
- Employers should develop plans to encourage employees to be more physically active, including active travel to work (National Institute for Health and Clinical Excellence, 2008b)
- Encouraging people to walk or cycle requires high-level support and action across a range of sectors, including public health, the NHS, local authorities, workplaces and schools (National Institute for Health and Clinical Excellence, 2012)
- Local programmes to support walking and cycling should be established (National Institute for Health and Clinical Excellence, 2012)

- Local strategy and plans are required to promote physical activity among children and young people (National Institute for Health and Clinical Excellence, 2009)
- Ensuring the provision of appropriate spaces, facilities and equipment (National Institute for Health and Clinical Excellence, 2009)

Many of these recommendations are reflected in the WHO guide to increasing levels of physical activity (World Health Organization, 2007). This guide recommends a number of elements required for strategies or plans to be successful, including high level political commitments, integration into national policies, identification of national goals and objectives, funding, stakeholder support, cultural sensitivity, multiple interventions strategies, targeting the whole population as well as specific groups, implementation at different levels, and leadership.

6.2 Cochrane Reviews

Four Cochrane reviews were identified which assessed a number of different interventions aimed at increasing or promoting physical activity. These reviews found:

- An inconsistent evidence base to support multi-component community wide interventions to effectively increase population levels of physical activity (Baker Philip, Francis Daniel, Soares, Weightman Alison, & Foster, 2011)
- Good evidence that school-based physical activity interventions are effective in increasing duration of physical activity, reducing blood cholesterol and time spent watching television and increasing VO2 max (Dobbins, DeCorby, Robeson, Husson, & Tirilis, 2009). VO2 max, known as maximal oxygen uptake or aerobic capacity, reflects the physical fitness level of an individual and generally increases as fitness levels improve. School-based interventions are not effective in increasing the percentage of children and adolescents who are physically active during leisure time, or in reducing systolic and diastolic blood pressure, body mass index, and pulse rate.

- Insufficient evidence to determine whether organisational travel plans are effective for improving health or changing travel mode (Jamie, Alexandra, Jennie, Chris, & Shanthi, 2010)
- There is an absence of high quality evidence to support interventions designed and delivered by sporting organisations to increase participation in sport (Priest, Armstrong, Doyle, & Waters, 2008).

A number of these reviews report on the need for well-designed and evaluated studies in order to inform the evidence base (Baker Philip et al., 2011; Jamie et al., 2010; Priest et al., 2008).

6.3 Reviews of reviews

In addition to the Cochrane reviews, four reviews of reviews were identified which considered interventions to promote physical activity. A 2012 special issue of the Lancet looked at physical activity and sedentary behaviour. A review of reviews of evidence-based interventions (Heath et al., 2012) recommended:

- informational approaches of community-wide and mass media campaigns, and short physical activity messages targeting key community sites.
- Behavioural and social approaches
- introducing social support for physical activity within communities and worksites
- school-based strategies that encompass physical education, classroom activities, after-school sports, and active transport.

Environmental and policy approaches including creation and improvement of access to places for physical activity with informational outreach activities; community-scale and street-scale urban design and land use; active transport policy and practices; and community-wide policies and planning, are also recommended

For individuals at risk of type 2 diabetes, intervention effectiveness was increased by engaging social support, targeting both diet and physical activity, and using well-

defined/established behaviour change techniques (Greaves et al., 2011). Increased effectiveness was also associated with increased contact frequency and using a specific cluster of "self-regulatory" behaviour change techniques (e.g. goal-setting, self-monitoring).

School-based multicomponent intervention strategies, including family components, are the most effective for increasing overall physical activity for young people (Kriemler et al., 2011)

The effect of family- and community-based interventions remains uncertain despite improvements in study quality. Of the little evidence of effectiveness, most comes from those targeted at families and set in the home. Further detailed research is needed to identify key approaches for increasing young people's PA levels in family and community settings (van Sluijs, Kriemler, & McMinn, 2011).

7. Barriers to participation in physical activity

Key messages

- A wide range of barriers can affect an individual's participation in any type of physical activity
- These may include personal barriers such as an individual's perception of own health, lack of awareness of options, feeling embarrassed, or lack of motivation or interest.
- External factors include lack of transport or facilities, cost, timing of classes, and bad weather
- Lack of motivational support was one factor identified for patients with a long term condition, mental illness, or learning disability
- Migrants face particular challenges adapting to their new environment and cultural and religious beliefs can be a barrier
- A postal survey of Westminster residents found that lack of time was the largest barrier. Lack of energy and expense, as well as perceived costs incurred, were also significant barriers.

The Department of Health recommendations for physical activity (Department of Health, 2011) apply to the entire UK population, irrespective of gender, race or socio-economic status. However, barriers can have a disproportionate effect on an individual's ability to adhere to the guidelines. Any public health interventions to promote physical activity must consider these barriers.

The literature review identified 8 papers which specifically considered barriers to physical activity either for a targeted population or across the whole population. In

addition, two surveys undertaken in Westminster provide further detail at a local level.

7.1 Barriers for people with a long term condition

Korkiakangas et al (2009) identified both internal and external barriers to physical activity among adults at high risk or diagnosed with type 2 diabetes. Internal barriers were defined as “factors which could be influenced by the individual’s own decision-making”, and the individual feels that the benefits of physical activity do not outweigh the cost (e.g. pain, tiredness). These barriers included lack of time, fear of physical activity, shame, feeling tired or unwell or uncomfortable, and laziness.

External barriers are “factors which are independent of an individual’s decision-making” and included weather, cultural barriers, lack of facilities, and lack of social support. The authors suggest that adults at high risk of, or already diagnosed with, type 2 diabetes should be helped to identify barriers and that the content of counselling is developed to create solutions to overcome these barriers

As with type 2 diabetes patients, different types of barriers have been identified for patients with cardiovascular disease. McCarthy et al (2011) cited provider level barriers (disparities in referrals to cardiac rehabilitation including a sex bias in favour of men); system level barriers such as access to transport and costs; and individual level factors such as perception of own health status, as well as a lack of awareness and negative perceptions of cardiac rehabilitation programmes.

A review (Mulligan, Hale, Whitehead, & Baxter, 2012) of people with long term neurological conditions found that barriers to physical activity participation arise from “personal factors that when coupled with lack of motivational support from within the environment, challenge perceptions of safety and confidence to exercise”.

Personal barriers identified included a belief that physical activity did not offer positive benefits, and a low self-efficacy to undertake any form of physical activity. An individual’s health status was also important, with impaired function as a result of

a neurological or secondary condition being a key factor. This could include fatigue, poor balance or vision, or uncoordinated movement.

Access to transport, financial cost, wheelchair access, insufficient knowledge among staff, feeling embarrassed, decreased mobility and the need for assistance were further barriers highlighted in the review.

7.2 Barriers for people with a learning disability

Barriers identified for people with a learning disability include transport, cost, lack of awareness of options, negative support from carers and authority figures (e.g. teachers, coaches and parents) and a lack of policies for engaging in regular activity in residential and day services (Bodde & Seo, 2009)

7.3 Barriers for people with mental illness

In a 2011 review (Verhaeghe, De, Maes, Van, & Annemans, 2011) a number of barriers reported by mental health patients were identified including their own mental illness, the side effects of medication, lack of support, financial barriers, and stigma. In addition, poor motivation among patients and an unwillingness to participate were acknowledged as barriers by mental health nurses.

7.4 Barriers for older people

Baert et al (2011) identified a range of barriers for older people, while recognising that there was a lack of research on the oldest old (aged 80+). Barriers were categorised into 3 domains - intrapersonal, interpersonal or community. Intrapersonal barriers include health or physical impairment, lack of time or motivation or interest, too tired, discouragement from others, feeling embarrassed or self-conscious, fear of injury or pain, lack of knowledge how to start, feeling too old for activity or that it is inappropriate, and a belief that older people cannot change or do not need as much physical activity.

The absence of a companion, social opposition, and advice not to engage in physical activity (including from health care professionals) were identified as significant

interpersonal barriers, as was a commitment to the care of others (e.g. husbands/wives, grandchildren). At the community level the timing of classes, the complexity or effort required for a programme, cost, access to facilities, bad weather, neighbourhood or personal safety, and lack of transport or heavy traffic were all cited as barriers to undertaking physical activity. The authors conclude that interventions and evaluations must be flexible and reflect the local need and context.

An evaluation of the Active Age project in Kensington and Chelsea (Open Age, 2011) found that participants valued the activities offered by the project and that they would not attend activities in other venues for a number of reasons. These included concerns about cost and transport, and 'they go too fast', 'the tutor does not take account of the fact we are older people' or 'the music is too loud'.

Although most of the participants' expectations were met by the activities offered, the report did highlight a lack of provision for Muslim women (particularly in relation to cultural requirements) and for men only groups. Furthermore, a consultation of non-members identified a range of barriers:

- People who perceived them self to be ill already were not interested in physical activity as "it would make me worse"
- Lack of awareness of activities available across the borough, or of Open Age itself.
- Lack of motivation to start exercise
- Cost
- Certain activities, of particular interest to men, were not currently provided

7.5 Barriers for migrants

Research indicates that migrants to Western societies have poorer health status and behaviours as they adapt to their new surroundings and culture. There is evidence that physical inactivity is common in migrant groups, and is a key contributing risk factor to chronic disease for these individuals.

Barriers for this group include: cultural and religious beliefs, issues with social relationships, socioeconomic challenges, environmental barriers, and perceptions of health and injury (Caperchione, Kolt, & Mummery, 2009).

7.6 Other barriers

There is some evidence (Chan & Ryan, 2009) that confirms a correlation between the perception of precipitation (mainly rainfall) and physical activity. However, snow may in fact increase activity among men.

7.7 Local research

A postal survey conducted as part of the Major Health Campaign in Westminster (Bowns, 2010) found that 48% of respondents cited lack of time as a perceived barrier. Nearly a quarter (24%) identified lack of energy as a barrier, and expense by almost a fifth of respondents. It is worth noting that physical activity was associated with sport or gym use and that there was a perception that participation in physical activity would incur costs.

There are indications that people with poor mental health and people with learning disabilities are less likely than average to meet the recommended level of physical activity.

A survey of staff at NHS Westminster (Persson, 2010) found the three greatest barriers to becoming physically active were work commitments, family commitments, and lack of motivation.

8. Beliefs and attitudes to physical activity

Key messages

- While health professionals recognise the importance of physical activity there is some evidence of a number of barriers in providing advice, such as uncertainty on effectiveness of advice, lack of time, and training.
- Health professionals who are physically active are more likely to counsel patients on physical activity.
- Parents and children have concerns over their local environment, including personal safety, traffic, theft and other crimes.
- Policies to promote walking and cycling are likely to be more successful if they address concerns about safety, and promote the capacity of children and young people to make their own transport choices
- For older people, social benefits and support are key factors for participating in classes
- Support from health professionals and to be treated with dignity and respect is important for patients with a mental illness
- In a Westminster survey the most powerful motivating factor to participate in physical activity was the desire to be fit. Other factors included a desire to protect future health, the desire to look good, and to help with relaxation.

The literature review identified 6 reviews specifically examining the beliefs and attitudes to physical activity, either from the viewpoint of the health professional

and specific population groups. In addition, the Major Health Campaign in Westminster identified a range of views of local residents towards physical activity.

8.1 Beliefs of healthcare professionals

While acknowledging the limited evidence base and poor methodological quality of existing studies, Cottrell et al (2010) found that although 99% of GPs agreed that exercise should be used for chronic knee pain or knee osteoarthritis (and reported that they had provided advice or referred to a physiotherapist) up to 29% believed that rest was the best management approach. The frequency of actual provision of physical activity advice or physiotherapy referral was lower.

There is some evidence that primary care providers (GPs, nurses and nurse practitioners) are uncertain about the effectiveness of advising on physical activity, feel uncomfortable providing detailed advice, and cite lack of time, training and reimbursement as barriers (Hebert, Caughey, & Shuval, 2012). Although it was reported that most providers believe counselling on physical activity to be important and that they have a key role to play in promoting physical activity to their patients. The review also found that providers are more likely to counsel patients about physical activity if they are active themselves or if they feel their patients' medical condition would benefit from a lifestyle change.

While the benefits of promoting physical activity for people in mental health care are recognised by both patients and mental health nurses (Verhaeghe et al., 2011) there is some evidence that nurses focus on the treatment of the condition rather than promoting healthy lifestyles. The authors suggest that nurse education should teach mental health nurses how to recognise opportunities for promoting health lifestyles and how to develop plans to integrate health promotion into normal practice.

8.2 Beliefs of different age groups

Promoting walking and cycling as part of everyday life, including active travel, has been identified as a strategy to tackling obesity and chronic disease (Lorenc, Brunton, Oliver, Oliver, & Oakley, 2008). Lorenc et al (2008) considered the views of

children, young people and parents. In total the views of at least 8776 respondents were included in the studies considered. Four key themes stood out: a strong culture of car use, fear and dislike of local environments, children as responsible transport users, and parental responsibility for children

Car ownership and use was viewed as an integral part of normal adult lifestyle and considered as more convenient than walking or cycling. Both parents and children expressed fear and dislike of local environments with concerns regarding safety, traffic, theft and other crimes. Children's (particularly young children's) perceptions of walking and cycling were more positive than those of adults. Parents identified a trade-off between ensuring children's safety and fostering independent mobility.

The authors conclude that policies to promote walking and cycling are likely to be more successful if they address concerns about safety, and promote the capacity of children and young people to make their own transport choices.

A review (Rogers, Keller, & Larkey, 2010) of the perceived benefits of meditative meditation (such as Tai Chi and Qigong) among older people identified perceived improvements in function and self-reported quality of life among participants. Altogether, 1,856 participants from 37 studies were included in the review. Most participants took up Tai Chi as they believed it would improve function, reduce pain, maintain fitness and health, promote psychological well-being, reduce blood pressure and reduce arthritis, and assist them to recuperate from illness.

There were also perceived social benefits. Social support was a key factor for joining classes in the first place and also for maintaining physical activity. Improvements in self-efficacy and confidence to perform physical activity were also reported.

8.3 Beliefs of people with mental illness

Varhaeghe et al (2011) found that most mental health patients considered physical activity to be beneficial for physical and mental health. However, in one study 30% of patients experienced no change in their illness symptoms during physical activity and

11% reported an increase in illness symptoms.

Patients felt more comfortable if they were supported by their mental health nurses, and felt it was important to be treated with dignity and respect.

8.4 Beliefs of local population

The Major Health Campaign in Westminster found that 64% of those who did not undertake physical activity five times per week expressed a desire to exercise more (Bowns, 2010). This figure rose to 70% of those who did not undertake physical activity 3 times per week. Most of this latter group (52%) were in full-time work.

The most powerful motivating factor cited by people was the desire to be fit, with 76% of respondents citing this as a factor. Other significant motivators were the desire to protect future health (64%), the desire to look good (58%) and to help with relaxation (48%).

Participants in interviews and discussion groups had a number of suggestions about how to increase levels of physical activity:

- Young men in particular thought sport was a key enabler
- Peer influence was a key factor for young people
- A number of young people stressed the importance of building in structure and routine to help develop consistency in new behaviour
- The benefits of physical activity for children could be a way of engaging young parents
- Special gym or physical activity sessions specifically for women from their own peer group
- Improve crèche provision
- A very strong message from people with severe and enduring mental illness was the need to integrate support for a more active lifestyle into the care and support programmes provided by supported housing and care provider agencies

- Word of mouth among mothers
- Using schools and nurseries as a key source of both information and support
- Informal social events would be a good route for communicating messages

8.5 Beliefs of women with Gestational Diabetes

A review (Jones, Roche, & Appel, 2009) of the health beliefs of women with previous gestational diabetes reported a low risk perception that they may develop future type 2 diabetes. The majority of studies included in the review revealed a distinct gap between the womens' knowledge and healthy behaviour, with other studies demonstrating a clear lack of knowledge regarding necessary lifestyle modifications, including an increase in physical activity.

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Appendix A: Department of Health recommendations			
Age group	Recommendation	Type of activities	Minimising sedentary behaviour
Early years (under 5s) – for infants who are not yet walking	<ul style="list-style-type: none"> Physical activity should be encouraged from birth, particularly through floor-based play and water-based activities in safe environments. All under 5s should minimise the amount of time spent being sedentary for extended periods 	<p>For infants who are not yet walking, physical activity refers to movement of any intensity and may include:</p> <ul style="list-style-type: none"> ‘Tummy time’ – this includes any time spent on the stomach including rolling and playing on the floor Reaching for and grasping objects, pulling, pushing and playing with other people ‘Parent and baby’ swim sessions <p>Floor-based and water-based play encourages infants to use their muscles and develop motor skills. It also provides valuable opportunities to build social and emotional bonds.</p>	<p>Reducing time spent in infant carriers or seats</p> <p>Reducing time spent in walking aids or baby bouncers (these limit free movement)</p> <p>Reducing time spent in front of TV or other screens</p>
Early years (under 5s) – for children who are capable of walking	<ul style="list-style-type: none"> Children of pre-school age who are capable of walking unaided should be physically active daily for at least 180 minutes (3 hours), spread throughout the day. All under 5s should minimise the amount of time spent being sedentary for extended periods 	<p>Mainly unstructured active play but may also include more structured activities.</p> <p>Activities can be of any intensity and may include:</p> <ul style="list-style-type: none"> Activities which involve movements of all the major muscle groups Energetic play, e.g. climbing frame or riding a bike More energetic bouts of activity, e.g. running and chasing games Walking/skipping to shops, a friend’s home, a park or to and from a school 	<p>Reducing time spent watching TV, using the computer or playing video games</p> <p>Reducing time spent in a pushchair or car seat</p>
Children and Young People (5-18)	<ul style="list-style-type: none"> All children and young people should engage in moderate to vigorous intensity physical activity for at least 60 minutes and up to several hours every day. Vigorous intensity activities, including those that strengthen muscle and bone, should be incorporated at least three days a week. All children and young people should minimise the amount of time spent being sedentary for extended periods. 	<p>Moderate intensity physical activities include:</p> <ul style="list-style-type: none"> Bike riding Playground activities <p>Vigorous intensity physical activities:</p> <ul style="list-style-type: none"> Fast running Sports such as swimming or football <p>Physical activities that strengthen muscle and bone include:</p> <ul style="list-style-type: none"> Swinging on playground equipment Hopping and skipping Sports such as gymnastics or tennis 	<p>Reducing time spent watching TV, using the computer or playing video games</p> <p>Breaking up sedentary time such as swapping a long bus or car journey for walking part of the way</p>
Adults	<ul style="list-style-type: none"> Adults should aim to be active daily. Over a week, activity should add up to at least 150 minutes (2½ hours) of moderate intensity activity in bouts of 10 minutes or more 	<p>Moderate intensity physical activities include:</p> <ul style="list-style-type: none"> Brisk walking Cycling 	<p>Reducing time spent watching TV, using the computer or playing video games</p>

	<ul style="list-style-type: none"> 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. Adults should also undertake physical activity to improve muscle strength on at least two days a week. All adults should minimise the amount of time spent being sedentary for extended periods. 	<p>Vigorous intensity physical activities include:</p> <ul style="list-style-type: none"> Running Sports such as swimming or football <p>Physical activities that strengthen muscles include:</p> <ul style="list-style-type: none"> Exercising with weights Carrying or moving heavy loads such as groceries 	<p>Taking regular breaks at work</p> <p>Breaking up sedentary time such as swapping a long bus or car journey for walking part of the way</p>
Older Adults	<ul style="list-style-type: none"> Older adults who participate in any amount of physical activity gain some health benefits, including maintenance of good physical and cognitive function Older adults should aim to be active daily. Over a week, activity should add up to at least 150 minutes (2½ hours) of moderate intensity activity in bouts of 10 minutes or more. For those who are already regularly active at moderate intensity, comparable benefits can be achieved through 75 minutes of vigorous intensity activity spread across the week or a combination of moderate and vigorous activity. Older adults should also undertake physical activity to improve muscle strength on at least two days a week. Older adults at risk of falls should incorporate physical activity to improve balance and co-ordination on at least two days a week. All older adults should minimise the amount of time spent being sedentary for extended periods. 	<p>Moderate intensity physical include:</p> <ul style="list-style-type: none"> Brisk walking Ballroom dancing <p>Vigorous intensity physical activities include:</p> <ul style="list-style-type: none"> Climbing stairs Running <p>Physical activities that strengthen muscles include:</p> <ul style="list-style-type: none"> Carrying or moving heavy loads such as groceries Activities that involve stepping and jumping such as dancing Chair aerobics <p>Activities to improve balance and co-ordination may include:</p> <ul style="list-style-type: none"> Tai chi Yoga 	<p>Reducing time spent watching TV</p> <p>Taking regular walk breaks around the garden or street</p> <p>Breaking up sedentary time such as swapping a long bus or car journey for walking part of the way</p>

Appendix B: Physical activity recommended for long term conditions					
Long Term Condition	Type of Activity	Frequency	Time	Intensity	Other evidence
Cancer	Aerobic (walking, cycling, swimming, resistance), body weight, proprioception and balance e.g. Tai Chi	Daily	Minimum of 10 minutes gradually increasing to 30 minutes a day but adapted to individual's age and fitness level	Moderate	<ul style="list-style-type: none"> Physical activity has a strong protective effect against colon, breast, and endometrial cancers and a moderate effect against prostate lung and ovarian cancer Regular physical activity before and after cancer diagnosis not only improves function and wellbeing but significantly improves survival. 90 minutes of brisk walking a week appears to be the minimal activity to create most of these benefits. Physical activity does not cause excessive tiredness in those patients undergoing treatment
Cardiovascular Disease	<p>Aerobic activity such as walking, jogging, cycling, swimming, rowing, stair climbing, elliptical trainers, aerobic dancing etc.</p> <p>Strength training two days a week with a weight that allows for 8-12 repetitions per major muscle set</p>	Daily	10 minutes a day and build up slowly to the recommendations of 150 minutes of moderate activity	<p>At least moderate intensity.</p> <p>Vigorous intensity activity should be added if possible and when required</p>	<p>Physical inactivity carries a similar risk of cardiovascular disease as smoking and hypertension.</p> <ul style="list-style-type: none"> 150 minutes of moderate activity a week with or without vigorous activity can reduce the risk of CAD by 22% in men and up to 33% in women. Following a cardiac event all should be invited to participate in Cardiac Rehabilitation, however currently only 38% of eligible patients participate. Almost all inactive patients with CVD should be able to participate in some activity by starting at 10 minutes walking a day and then slowly introducing other activity, resistance training and potentially vigorous activity. It is important to educate the patient about the warning signs of faintness, chest pain etc. which need immediate follow up.
Diabetes	<p>Aerobic: – large muscle group activities e.g. walking, cycling, swimming</p> <p>Resistance: balance, proprioception and flexibility – e.g. yoga, Tai chi, referral to physiotherapy and through the gym.</p>	Daily	For those unaccustomed to exercise, starting at 15 minutes a day and building to 150 minutes a week is recommended.	At least moderate intensity and should be gradually progressed to vigorous intensity as able to do so.	<ul style="list-style-type: none"> Physical activity benefits patients with pre-diabetes, type I and type II diabetes. In those patients with pre-diabetes, increased physical activity and a good diet can reduce the incidence of type II diabetes by 58% compared to 31% for those individuals taking metformin. There is clear evidence that healthy lifestyle change can prevent the development of type II diabetes in a cost effective manner in high risk individuals. For individuals with type II diabetes, there is strong evidence that physical activity can reduce HbA1c by approximately 0.6% even without associated weight loss and can lead to reduced medication.
Depression	The addition of walking with other people and in green space has been	Daily	For those unaccustomed to exercise, starting at 15	As per DH guidelines of	NICE recommends physical activity as an effective treatment for depression.

	<p>shown to have a positive effect on mental health.</p> <p>NICE recommends Health Walks specifically as an effective way to improve wellbeing in the elderly. For active people, sport activities may provide distraction through their sociable nature.</p>		<p>minutes a day and building to 150 minutes a week is a recommendation</p>	<p>150 minutes of moderate activity and/or 75 minutes of vigorous activity.</p>	<ul style="list-style-type: none"> • There is strong evidence that regular physical activity reduces the risk of depression possibly by as much as a third. • 150 minutes of moderate activity and/or 75 minutes of vigorous activity is recommended with possible greater benefit from being outdoors in green space
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Appendix C: NICE guidance on physical activity					
No.	Title	Audience	Summary	Published date	Review date
PH2	Four commonly used methods to increase physical activity: brief interventions in primary care, exercise referral schemes, pedometers and community based exercise programmes for walking and cycling http://guidance.nice.org.uk/PH2	This guidance is for professionals in the NHS, local authorities and the voluntary sector.	<p>Important note: There are 6 recommendations in this guidance. However, recommendations 1-4 have been superseded by PH44 Physical activity and brief advice for adults in primary care. Recommendation 6 has been superseded by PH41 Walking and cycling. The guidance will be fully updated by guidance on Exercise Referral Schemes due to be published Jan 2015</p> <p>Recommendation 5 (on exercise referrals) states: “Practitioners, policy makers and commissioners should only endorse exercise referral schemes to promote physical activity that are part of a properly designed and controlled research study to determine effectiveness. Measures should include intermediate outcomes such as knowledge, attitudes and skills, as well as measures of physical activity levels. Individuals should only be referred to schemes that are part of such a study.”</p>	March 2006 (partially updated by PH41 and 44)	TBC
PH6	Behaviour change http://guidance.nice.org.uk/PH6	This guidance is aimed at those responsible for helping people to change their behaviour to improve their health	<p>The recommendations include the following advice:</p> <ul style="list-style-type: none"> • base interventions on a proper assessment of the target group, where they are located and the behaviour which is to be changed: careful planning is the cornerstone of success • work with other organisations and the community itself to decide on and develop initiatives • build on the skills and knowledge that already exists in the community, for example, by encouraging networks of people who can support each other • take account of – and resolve – problems that prevent people changing their behaviour (for example, the costs involved in taking part in exercise programmes or buying fresh fruit and vegetables, or lack of knowledge about how to make changes) • base all interventions on evidence of what works • train staff to help people change their behaviour • evaluate all interventions. 	October 2007	October 2014
PH8	Promoting and creating built or natural environments that encourage or support physical activity. http://guidance.nice.org.uk/PH8	NHS and other professionals who have responsibility for the built or natural environment.	<p>Recommendations include:</p> <ul style="list-style-type: none"> • Ensure planning applications for new developments always prioritise the need for people (including those whose mobility is impaired) to be physically active as a routine part of their daily life. • Ensure pedestrians, cyclists and users of other modes of transport that involve physical activity are given the highest priority when developing or maintaining streets and roads. • Plan and provide a comprehensive network of routes for walking, cycling and using other modes of transport involving physical activity. • Ensure public open spaces and public paths can be reached on foot, by bicycle and using other modes of transport involving physical activity. 	Jan 2008	Feb 2014
PH13	Workplace health promotion: how to encourage employees to be physically active.	Employers and professionals in small, medium and large organisations,	<p>Recommendations for employers include:</p> <ul style="list-style-type: none"> • Develop an organisation-wide plan and introduce and monitor an organisation-wide, multi-component programme to encourage and support employees to be more physically active. (This could be part of a broader programme to improve health.) 	May 2008	Jul 2014

	http://guidance.nice.org.uk/PH13	especially those working in human resources or occupational health	<ul style="list-style-type: none"> Encourage employees to walk, cycle or use another mode of transport involving physical activity to travel part or all of the way to and from work (for example, by developing a travel plan). Help employees to be physically active during the working day, for example, by encouraging them to take the stairs or walk to external meetings. 		
PH17	Promoting physical activity, active play and sport for pre-school and school-age children and young people in family, pre-school, school and community settings. http://guidance.nice.org.uk/PH17	All those who are involved in promoting physical activity among children and young people, including parents and carers.	<p>The NICE recommendations give advice on:</p> <ul style="list-style-type: none"> how to promote the benefits of physical activity and encourage participation high level strategic planning the importance of consultation with children and young people and how to set about it planning and providing spaces, facilities and opportunities training people to run programmes and activities how to promote physically active travel such as cycling and walking. 	Jan 2009 (reviewed 2012 – no update required)	Jan 2015
PH41	Walking and cycling: local measures to promote walking and cycling as forms of travel or recreation. http://guidance.nice.org.uk/PH41	Commissioners, managers and practitioners involved in physical activity promotion or environment, parks and leisure or transport planning	<p>Encouraging and enabling people to walk or cycle requires action on many fronts – and by many different sectors. A range of issues have to be addressed, including environmental, social, financial and personal factors.</p> <p>The recommendations cover:</p> <ul style="list-style-type: none"> local programmes policy and planning schools, workplaces and the NHS. <p>In addition to the recommendations made in this (and related) NICE guidance, other measures are needed to tackle the wider influences on walking or cycling. This includes measures to reduce road dangers and to reallocate road space to create a more supportive environment.</p>	Nov 2012	Nov 2015
PH44	Physical activity: brief advice for adults in primary care http://guidance.nice.org.uk/PH44	Commissioners of health services and anyone working in primary care whose remit includes offering lifestyle advice	<p>Replaces recommendations 1-4 in PH2. Recommendations include:</p> <ul style="list-style-type: none"> Identifying adults who are inactive Delivering and following up on brief advice Incorporating brief advice on physical activity in commissioning Ensuring systems to support brief advice are in available and accessible Providing information and training for primary care practitioners 	May 2013	May 2016