

## Physical Activity

### **Summary**

The impact of physical inactivity on health and healthy life expectancy is clear. Inactivity increases the risk of a wide range of chronic conditions. Increasing physical activity levels across Hampshire will help in the prevention of unnecessary diseases and death as well as reducing costs to the NHS and wider economy.

Hampshire on the whole is more active than England or the South East of England. This masks the fact that the majority of the Hampshire population are inactive. Although we have no robust local data, national estimates suggests that physical activity declines with age and there are significant differences in activity levels between the most and the least well off. Updated guidance on the recommendations for physical activity and sedentary behaviours, Start Active Stay Active was published in 2011.

There is a clear need to inform, motivate and support individuals and communities to be active in ways that are safe, accessible and enjoyable. There is no one single solution to increasing physical activity, an effective comprehensive approach requires multiple concurrent strategies to be implemented across multiple sectors. NICE provides key guidance, alongside other evidence which should be used to plan and deliver effective interventions to increase physical activity.

### **Recommendations**

- Plan and deliver evidence based, coordinated strategies aimed at the individual, social-cultural, environmental and policy determinants of inactivity to support people to be active throughout life.
- Utilise whole-community approaches where people live, work and play to mobilise large numbers of people, influence social norms around health and activity, and improve facilities and environments. Address wider determinants that influence physical activity (e.g. improving the built environment, access and availability of good quality open and green spaces available across the social gradient, integrating planning, transport, housing, environmental and health systems).
- Focus approaches to target and support the population of Hampshire who are significantly inactive and improve feedback from the Hampshire population about determinants of physical activity as well as the opportunities available.
- Ensure that sedentary behaviours are addressed alongside approaches to increase physical activity. Workplace is a key setting to support adults with both behaviours.
- Use the Olympic Legacy as a springboard for community action to increase physical activity, including making use of 'the festival effect' and harnessing opportunities to use volunteers at mass participation and sporting events (for example Race for Life).
- Support primary and secondary healthcare providers to embed physical activity pathway and brief interventions into practice, especially as part of delivering NHS Health Checks.

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## 1. Introduction

Physical activity is a broad term to describe the force exerted by muscles in the body that results in energy expenditure above resting level. It can include everyday activity (such as active travel, heavy housework, and gardening), active recreation (recreational walking, active play, and dance) and sport (such as regular cycling, swimming, structured competitive activity, individual pursuits, and informal sports).

The Department of Health's 2011 report Start Active, Stay Active<sup>1</sup> provides updated guidelines on the type and amount of physical activity that people should be doing to benefit their health replacing the previous recommendations published in 2004<sup>2</sup>. The report provides new recommendations for different age groups across the life course, and for the first time includes guidelines for the early years (figure 1).

The guidance also highlights growing concern over the risks of sedentary behaviour. Although most of this research has focused on the relationship between sedentary behaviour and being overweight and obese, increasingly research is showing that sedentary behaviour is independently associated with all-cause mortality, type 2 diabetes, some types of cancer and metabolic dysfunction.

Sedentary behaviours in adults are impacted by age, gender, socio-economic conditions, occupation and some characteristics of the physical environment. These relationships are independent of the level of overall physical activity. For example, spending large amounts of time being sedentary may increase the risk of some health outcomes, even among those people who are active at the recommended levels.

The wide ranging benefits of being active across the life course are well evidenced and documented in Start Active, Stay Active. Regular physical activity reduces the risk of many chronic conditions including coronary heart disease, stroke, type 2 diabetes, cancer, obesity, and musculoskeletal conditions. Even relatively small increases in physical activity are associated with some protection against chronic disease and improved quality of life. Physical activity is also an important part of preventing and treating mental health problems including depression. Exercise can have a positive effect on mental health. The mechanism for this improvement is thought to be as a result of positive reinforcement from peers which increases self-worth; distraction from negative thoughts; increased social contact; and the physiologically effects of increased endorphin levels, a chemical that can create the feel good factor.<sup>3</sup>

Estimates of the impact of physical inactivity show the unnecessary deaths and diseases that can be avoided in Hampshire annually by increasing physical activity<sup>4</sup>

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<sup>1</sup> <https://www.gov.uk/government/publications/start-active-stay-active-a-report-on-physical-activity-from-the-four-home-countries-chief-medical-officers>

<sup>2</sup> At least five a week

<sup>3</sup> NICE (2010) Depression. The treatment and management of depression in adults. National Clinical Practice Guideline 90. <http://www.nice.org.uk/nicemedia/live/12329/45896/45896.pdf>

<sup>4</sup> <http://www.apho.org.uk/resource/view.aspx?RID=123459>

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(table 1). The total economic cost of physical inactivity to the NHS alone in Hampshire (2006-2007) was £18.14 million<sup>5</sup>.

**Table 1: Annual health impact of physical inactivity in Hampshire (adults aged 40-79 years)**

	<b>Preventable if 100% active</b>	<b>Preventable if 75% active</b>	<b>Preventable if 50% active</b>	<b>Preventable if 25% active</b>
<b>Total Deaths</b>	808	543	278	13
<b>Coronary Heart Disease (emergency hospital admissions)</b>	254	171	87	4
<b>Breast Cancer (new cases)</b>	184	124	63	3
<b>Colorectal Cancer (new cases)</b>	125	84	43	2
<b>Diabetes (prevalence)</b>	6690	4495	2300	105

The positive aspects of physical activity extend much further than reducing the risk of disease. Being physically active supports:

- Healthy growth and development of children and young people from birth (including the acquisition of social skills through active play, better concentration in school and displacement of antisocial and criminal behaviour).
- Improved productivity in the workplace, reduced congestion and pollution through active travel.
- Independence and active aging.

The legacy of the 2012 Olympic and Paralympic Games has presented an unrivalled and unique opportunity to establish active communities.

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<sup>5</sup>[http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod\\_consum\\_dh/groups/dh\\_digitalassets/documents/digitalasset/dh\\_105888.pdf](http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_105888.pdf)

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**Figure 1: Department of Health physical activity guidelines**

<p><b>EARLY YEARS (under 5s)</b></p> <ol style="list-style-type: none"> <li>1. Physical activity should be encouraged from birth, particularly through floor-based play and water-based activities in safe environments.</li> <li>2. 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.</li> <li>3. All under 5s should minimise the amount of time spent being sedentary (being restrained or sitting) for extended periods (except time spent sleeping).</li> </ol>	<p><b>CHILDREN AND YOUNG PEOPLE (5–18 years)</b></p> <ol style="list-style-type: none"> <li>1. 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.</li> <li>2. Vigorous intensity activities, including those that strengthen muscle and bone, should be incorporated at least three days a week.</li> <li>3. All children and young people should minimise the amount of time spent being sedentary (sitting) for extended periods.</li> </ol>
<p><b>ADULTS (19–64 years)</b></p> <ol style="list-style-type: none"> <li>1. 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 – one way to approach this is to do 30 minutes on at least 5 days a week.</li> <li>2. 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.</li> <li>3. Adults should also undertake physical activity to improve muscle strength on at least two days a week.</li> <li>4. All adults should minimise the amount of time spent being sedentary (sitting) for extended periods.</li> </ol>	<p><b>OLDER ADULTS (65+ years)</b></p> <ol style="list-style-type: none"> <li>1. Older adults who participate in any amount of physical activity gain some health benefits, including maintenance of good physical and cognitive function. Some physical activity is better than none, and more physical activity provides greater health benefits.</li> <li>2. 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 – one way to approach this is to do 30 minutes on at least 5 days a week.</li> <li>3. 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.</li> <li>4. Older adults should also undertake physical activity to improve muscle strength on at least two days a week.</li> <li>5. Older adults at risk of falls should incorporate physical activity to improve balance and co-ordination on at least two days a week.</li> <li>6. All older adults should minimise the amount of time spent being sedentary (sitting) for extended periods</li> </ol>

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## 2. Level of need in the population

### 2.1 Children and young people

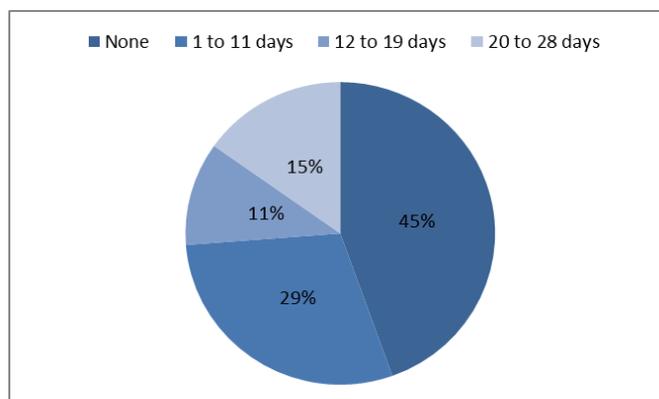
There is limited up-to-date data by local authority to estimate how many children and young people are active. National statistics<sup>6</sup> for England using self-reported measures of physical activity show that 66% of boys and 76% of girls aged between 2-15 years old did not meet the recommended levels of 60 minutes or more on all seven days a week. If these percentages are applied to Hampshire it is estimated that approximately 77,000 boys and 84,000 girls are not meeting the recommended levels of physical activity.

### 2.2 Adults

Data from the Active People Survey 2012 suggest that the majority of adults in Hampshire (85%) do not do enough physical activity to benefit their health (figure 2). In addition, a large proportion of adults in Hampshire (44%) do no physical activity.

Whilst Hampshire as a whole and most district and boroughs of Hampshire are more active in comparison to South East England or England averages there remains an unacceptably large number of people who are inactive to recommended levels to benefit health (figure 3). There has been no change in the proportion of people being adequately physically active in Hampshire over the last 7 years, in line with the national trend (figure 4).

**Figure 2: Percentage participation in Sport and recreation in Hampshire 2011 – 2012**

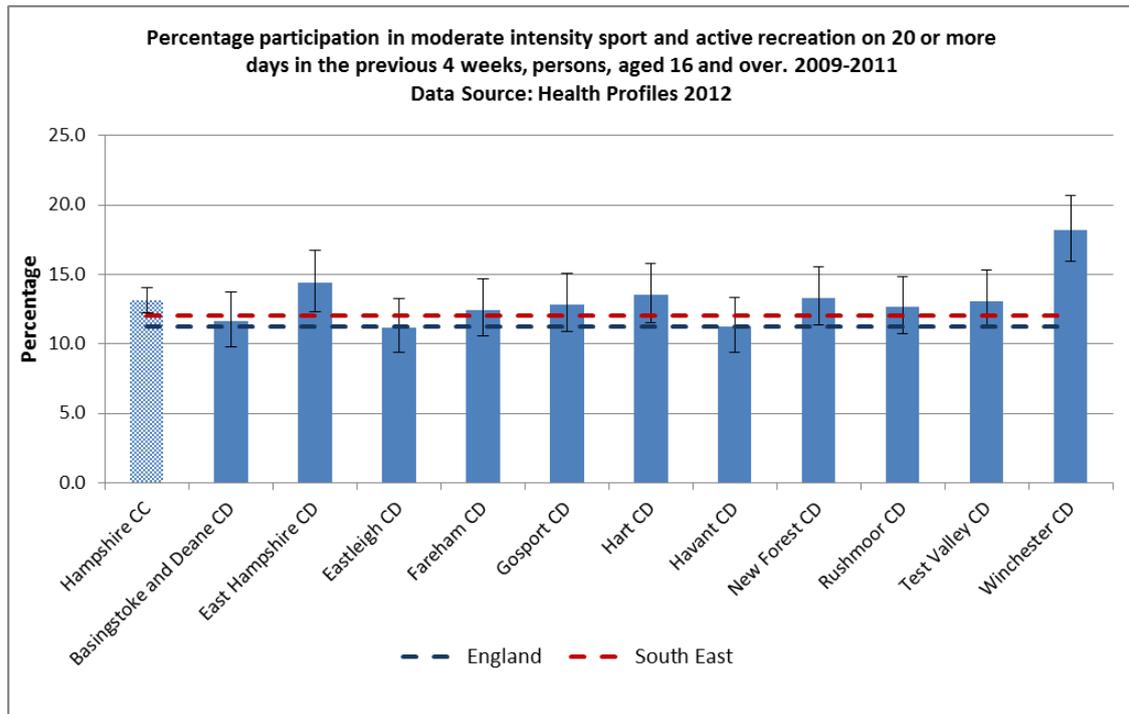


Data source: Active People Survey

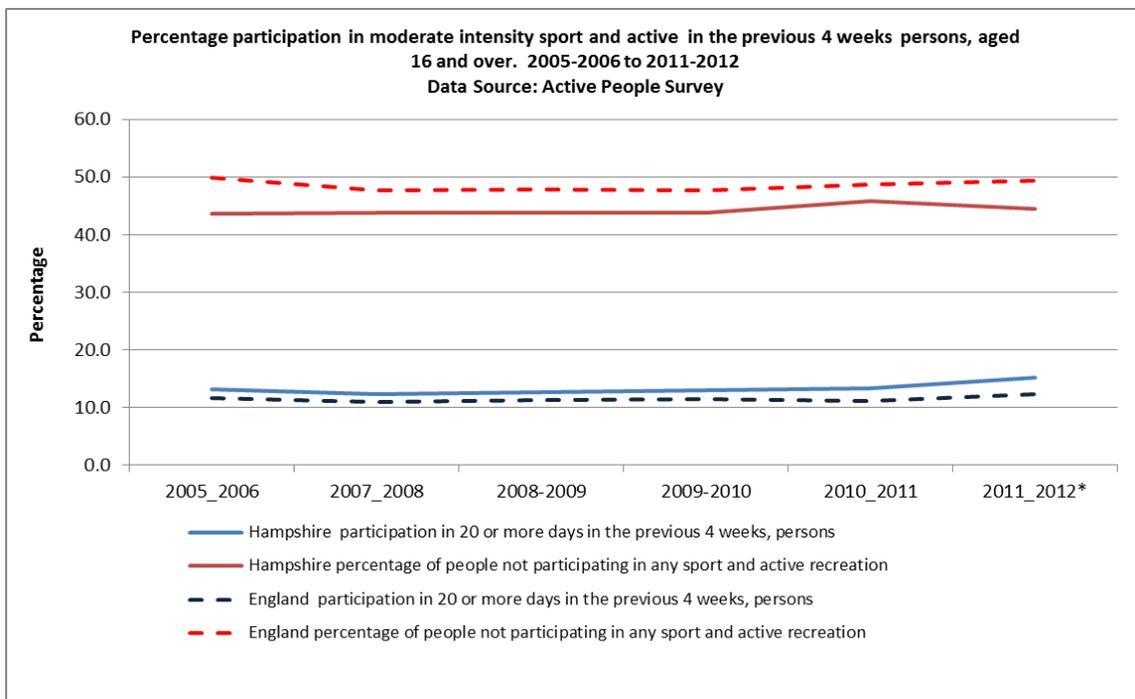
<sup>6</sup> British Heart Foundation Physical Activity Statistics 2012

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**Figure 3: Adult (16+) participation in 30 minutes moderate 'sport and active recreation' on 20 or more days in the past 4 weeks (equivalent to 30 minutes on 5 or more days per week)**



**Figure 4: Trend in adult participation in physical activity in Hampshire, 2005/06 to 2011/12**



The information presented above is a useful starting point in understanding physical activity levels but should be viewed with caution as it provides a definition of Sport and Active Recreation which does not include all types of physical activity. Also,

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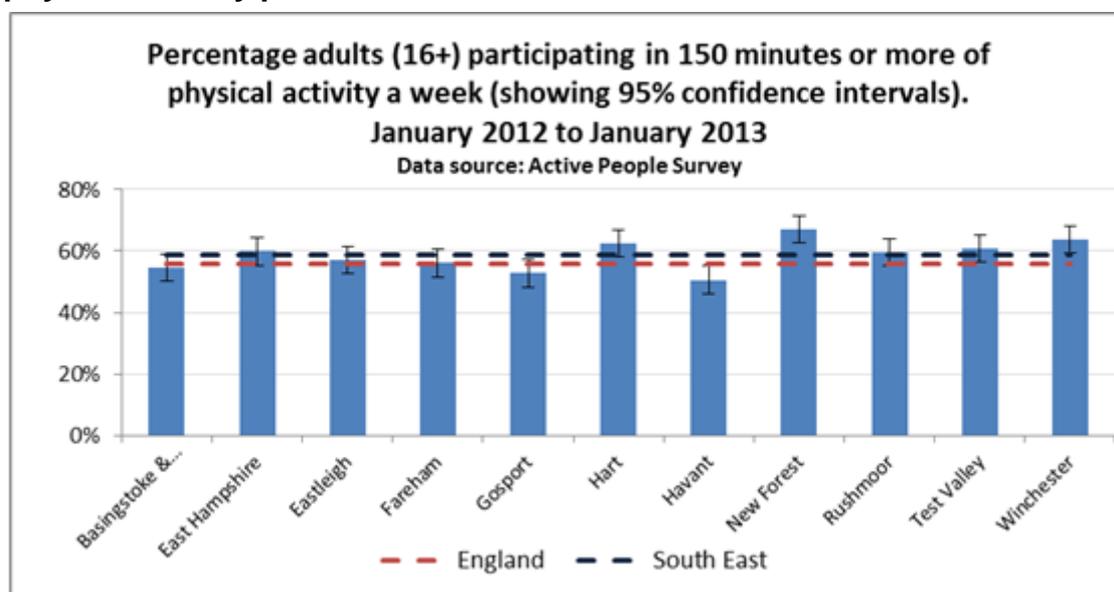
there are limitations with self-report surveys which are known to overestimate activity levels.

It is also worth noting that the data from the Active People Survey and Health Profiles correspond to achievement of the recommendations that preceded Start Active Stay Active (30 minutes of physical activity on at least five days a week for adults and at least one hour of moderate intensity activity a day for children aged 5 to 18 years).

New data from the Active People Survey (APS) have been collected in line with the Start Active, Stay Active guidance using self-report survey methods to determine the number of minutes of moderate physical activity (of at least 10 minutes at a time) over the past 28 days. This includes sport, walking and cycling for recreation, walking and cycling for travel, dance and gardening. Vigorous intensity activity is counted as double moderate intensity. For example 20 minutes of vigorous activity is converted and reported as 40 minutes of moderate activity. It is not possible to compare this new APS data with previous APS data due to differences in methodology.

The new data for Hampshire show that more people are achieving the levels of activity in line with the new Start Active Stay Active Guidance. However, further analysis and interpretation is needed to understand the validity and reliability of the data and compare future data with these baseline levels.

**Figure 5: Percentage of Adults (16+) in Hampshire participating in 150 minutes of physical activity per week**



### 2.3 Older adults

There are limited data on physical activity levels in older adults in Hampshire. National data<sup>7</sup> show that only 20% of men and 17% of women aged between 65 and 75 years met the guidelines for physical activity of 30 minutes on at least five days of

<sup>7</sup> Health Survey for England 2008

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the week. This analysis is based on different survey questions so cannot be compared with the local levels of activity for adults based on the Active people Survey.

The national data suggest a sharp decline in the numbers of older men and women meeting recommended physical activity levels from the age of 64 years. This decreases further from the age of 75 years. People of all ages, including older adults who participate in any amount of physical activity gain health benefits, including maintenance of good physical function, better bone health, reduced risk of depression and maintenance of cognitive function. Given the aging population Hampshire there are clearly many older people who can be supported to be more active in older age, which will improve their quality of life as well as reducing the need for social care and likelihood of hospital admissions.

### **2.4 Socioeconomic differences in physical activity**

There are no reliable data within Hampshire to show socioeconomic differences in physical activity levels. National data suggest significant differences in physical activity in adults for both men and women when considered by household income. These data<sup>5</sup> show a substantial difference in physical activity levels in adults by equivalised household income quintile. There are higher percentages of men and women meeting recommended levels in the highest income quintile (fifth of the population) compared to the lowest fifth. These differences are greater in men (42% compared to 31%) than in women (34% to 26%). These socioeconomic differences are consistently found nationally and will be replicated in Hampshire.

### **3. Projected service use and outcome in 3-5 years and 5-10 years**

While increasing the activity levels of all adults is important, targeting those adults who are significantly inactive (i.e. engaging in less than 30 minutes of activity per week) will produce the greatest impact<sup>8</sup>.

The aging population in Hampshire is a cause for concern and there needs to be a focus across all age groups to prevent future problems such as falls, obesity, diabetes and poor bone health.

The legacy of the 2012 Olympic and Paralympic Games has presented an unrivalled and unique opportunity to establish active communities. We have the opportunity to harness the positivity generated by the games to develop communities and make physical activity and sport the norm in communities across Hampshire.

### **4. Current services in relation to need**

There is a wide range of support in Hampshire to enable people to be physically active throughout their lives. The following list provides some examples of these.

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<sup>8</sup> <https://www.gov.uk/government/publications/start-active-stay-active-a-report-on-physical-activity-from-the-four-home-countries-chief-medical-officers>

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### **4.1 Mass media and communication**

Change4Life<sup>9</sup> is used locally as a mass media and communication approaches linked with the national campaign and a range of organisations link with this as an overarching approach to use more localised or community-wide campaigns. Information on local activity is also available for example Active Living, Healthy Hampshire IOW website.

### **4.2 Leisure services and facilities**

In general, leisure centres and community facilities in district and boroughs provide opportunities for children, families, adults and older adults to take part in structured physical activity and recreation through swimming, exercise classes and gyms.

### **4.3 Community**

Community approaches to increase physical activity in local populations and increase participation in sport are supported and developed by district and borough local authorities through health and wellbeing partnerships and physical activity and sport partnerships (such as Sport and Physical Activity Alliances).

### **4.4 Walking**

Walking for health programmes are widespread across Hampshire. These are walking groups led by volunteer walk leaders aimed at utilising safe and accessible short walks. These schemes link to the national Walk for Health programme provided by The Ramblers and Macmillan<sup>10</sup>.

### **4.5 Healthcare**

GP practices and healthcare practitioners in other primary and secondary healthcare settings provide support and encouraging patients to be active as part of NHS Health checks, specific clinics or through opportunistic interventions.

### **4.6 Older people**

Hampshire County Council and other stakeholders provide a range of interventions under the banner of 'Better Balance for Life'. This includes 'Better Balance for Life' leaflets providing information on simple exercise to improve strength and balance for independent use or in group settings (for example day centre's or residential homes). It also coordinates and supports delivery of 'Steady and Strong' classes across Hampshire, designed for older people who are unsteady on their feet to help them to carry on their normal daily routines and improve their balance, led by qualified exercise professionals.

### **4.7 Individual behaviour change support**

Health Trainer Services are available in Gosport, Havant and Rushmoor to support individuals to be active through one to one behaviour change support (motivational interviewing) and to signpost to other services.

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<sup>9</sup> <http://www.nhs.uk/Change4Life/Pages/change-for-life.aspx>

<sup>10</sup> <http://www.walkingforhealth.org.uk/>

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### **4.8 Workplace**

There are some initiatives and interventions to improve physical activity and minimise sedentary behaviours and improve health such as Health Champion programmes in various NHS provider organisations. Sport Hampshire and Isle Of Wight have developed a workplace programme called 'Be Active @ work' which provides support to help local employers in Hampshire to take part in sport.

### **4.9 Travel (including cycling)**

My Journey is a travel awareness campaign delivered by local councils and partners, with funding from the Department for Transport, that seeks to encourage Hampshire residents to consider all the different travel choices and options open to them for local journeys.

### **4.10 Children**

A range of initiatives and interventions are delivered through school and community settings. These include Healthy Schools programme and school travel planning. Other interventions are delivered as part of the Children and young people Healthy Weights strategy action plan these include MEND programmes as well as training for professionals working with children including Early Years settings (for example HENRY training). There are also a wide range of initiatives to support active play, outdoor play school travel etc.

## **5. User and provider views**

There is currently limited information regarding users or providers views in Hampshire. There is a clear need to establish user and provider views on services and interventions and for a range of issues that influence physical activity including barriers. These need to be routinely collected, analysed and reported in the future across the whole population and within sub-groups of targeted individuals / service users.

## **6. Evidence of what works**

Reversing downward trends in physical activity require a combination of strategies and approaches aimed at the individual, social-cultural, environmental and policy determinants of inactivity. Physical activity is influenced by policies and practices in education, transportation, parks and recreation, media, and business. Multiple sectors therefore need to be involved in the solutions. There is a need to inform, motivate and support individuals and communities to be active in ways that are safe, accessible and enjoyable. There is no single solution to increasing physical activity, an effective comprehensive approach requires multiple concurrent strategies to be implemented. These will need to be monitored and evaluated effectively.

The NICE Physical Activity pathway<sup>11</sup> highlights guidance available based on evidence-based approaches to improve physical activity levels. Key NICE guidance includes:

- Four commonly used methods to increase physical activity (PH2).

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<sup>11</sup> <http://pathways.nice.org.uk/pathways/physical-activity>

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- Walking and cycling (PH41) (partial update of PH2)
- Physical activity and the environment (PH8)
- Promoting physical activity for children and young people (PH17)
- Behaviour change (PH6)
- Promoting physical activity in the workplace (PH13)

Further partial updates of PH2 are currently being developed:

- Physical Activity brief advice in primary care
- Physical activity - exercise referral schemes to promote physical activity

Implementation of the recommendations in each of the key guidance will support approaches to increase physical activity across Hampshire. Interventions aimed at individuals to promote physical activity are important, but not the only solution. Other issues, including environmental factors, need to be tackled'. It is difficult to change people's behaviours when the environment discourages such changes<sup>12</sup>.

Physical activity programmes at work have been found to reduce absenteeism by up to 20%: Physically active workers take 27% fewer sick days. Getting employees involved in a physical activity programme can also lead to net savings while boosting productivity. In England, the costs of lost productivity have been estimated at £6.5 billion per year from sickness absence and premature death<sup>13</sup>.

Other evidence<sup>14</sup> supports using interventions that involve public education, including mass media as effective and raising awareness and changing social norms on physical activity.

### 7. Recommendations

- Plan and deliver evidence based, coordinated strategies aimed at the individual, social-cultural, environmental and policy determinants of inactivity to support people to be active throughout life.
- Utilise whole-community approaches where people live, work and play to mobilise large numbers of people, influence social norms around health and activity, and help to improve facilities and environments. Address wider determinants that influence physical activity (e.g. improving the built environment, access and availability of good quality open and green spaces available across the social gradient, integrating planning, transport, housing, environmental and health systems).
- Focus approaches to target and support the population of Hampshire who are significantly inactive, and improve feedback from the Hampshire population about determinants of physical activity as well as the opportunities available.
- Ensure that sedentary behaviours are addressed alongside approaches to increase physical activity. Workplace is a key setting to support adults with both behaviours.

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<sup>12</sup> <http://www.nice.org.uk/guidance/PH8>

<sup>13</sup> <http://www.nice.org.uk/guidance/PH13>

<sup>14</sup> <http://www.globalpa.org.uk/investments/>

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- Use the Olympic Legacy as a springboard for community action to increase physical activity, including making use of 'the festival effect' and harnessing opportunities to use volunteers at mass participation and sporting events (for example Race for Life).
- Support primary and secondary healthcare providers to embed physical activity pathway and brief interventions into practice, especially as part of delivering NHS Health Checks.