



Public Health  
England



Healthy people, healthy places briefing

# Obesity and the environment: increasing physical activity and active travel



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## About PHE

Public Health England's mission is to protect and improve the nation's health and to address inequalities through working with national and local government, the NHS, industry and the voluntary and community sector. PHE is an operationally autonomous executive agency of the Department of Health.

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## About this briefing

This briefing has been written in conjunction with the Local Government Association (LGA). It is aimed at those who work in or represent local authorities. It addresses the issue of taking action to create environments where people are more likely to walk or cycle for short journeys. It summarises the importance of action on obesity and a specific focus on active travel, and outlines the regulatory and policy approaches that can be taken.

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We would welcome your views on this briefing and how we might develop or improve these in future. If you have ideas for future topics, let us know. Enquiries to [Healthypeople.healthyplaces@phe.gov.uk](mailto:Healthypeople.healthyplaces@phe.gov.uk)

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# Obesity and the environment: increasing physical activity and active travel

## 1. The importance of action on obesity

In 2011 the government published 'Healthy lives, healthy people: a call to action on obesity in England',<sup>1</sup> which described the scale of the obesity epidemic and set out plans for action across England.\*

Obesity impacts on health in many ways. It is a cause of chronic disease leading to early death. It increases the risk of type 2 diabetes (fivefold in men and twelvefold in women), raised blood pressure (two and four times respectively) and colorectal cancer (three and two times respectively).<sup>2</sup>

Two-thirds of English adults, one fifth of children in reception (four to five years old), and a third in year 6 (ten to 11 years) are obese or overweight.<sup>2,3</sup> Obesity tends to track into adulthood, so obese children are more likely to become obese adults.<sup>3</sup>

There are stark inequalities in obesity rates between different socioeconomic groups: among children in reception and year 6, the prevalence of obesity in the 10% most deprived groups is approximately double that in the 10% least deprived.

## 2. The role of the environment

The 2007 UK government Foresight report 'Tackling obesities: future choices'<sup>4</sup> remains the most comprehensive investigation into obesity and its causes. It described

\* In adults, obesity is commonly defined as a body mass index (BMI) of 30 or more. BMI is weight (in KG) divided by the square of height (in metres). For children in the UK, the British 1990 growth reference charts are used to define weight status. See [www.noo.org.uk/NOO\\_about\\_obesity](http://www.noo.org.uk/NOO_about_obesity) for details

the complex relations between the social, economic and physical environments and individual factors that underlie the development of obesity.

Obesity is a complex problem that requires action from individuals and society across multiple sectors. One important action is to modify the environment so that it does not promote sedentary behaviour or provide easy access to energy-dense food.<sup>5</sup> The aim is to help make the healthy choice the easy choice via environmental change and action at population and individual levels. This provides the opportunity to build the partnerships that are important for creating healthier places, and around which local leaders and communities can engage.<sup>6</sup>

Local authorities have a range of legislative and policy levers at their disposal, alongside wider influences on healthy lifestyles, that can help to create places where people are supported to maintain a healthy weight. Public health professionals should work with their colleagues across local authorities to use these and other approaches to maximise health benefits.

## 3. Planning and health: the policy context

Planning authorities can influence the built environment to improve health and reduce the extent to which it promotes obesity.<sup>7,8</sup> The government's public health strategy 'Healthy lives, healthy people', explicitly recognises that "health considerations are

an important part of planning policy”,<sup>1</sup> and the Department of the Environment 2011 white paper made many explicit connections between planning and health.<sup>9</sup> One of the ten recommendations of the Academy of Medical Royal Colleges’ 2013 report on obesity was that “Public Health England should, in its first 18 months of operation, undertake an audit of local authority licensing and catering arrangements with the intention of developing formal recommendations on reducing the proximity of fast food outlets to schools, colleges, leisure centres and other places where children gather”.<sup>10</sup> It also recommended that local authority planning decisions should be subject to a health impact assessment.<sup>1</sup>

#### **4. Evidence for action on physical activity**

Regular physical activity is a key contributor to energy balance, helping to prevent obesity and excess weight.<sup>4</sup> It also reduces the risk of many chronic conditions, including coronary heart disease, stroke, type 2 diabetes, cancer, mental health problems and musculoskeletal conditions.<sup>11</sup>

The Department of Health (DH) recommends that adults take at least 150 minutes (2.5 hours) of moderate-intensity aerobic activity every week. Children over five should engage in at least 60 minutes of moderate to vigorous intensity physical activity every day. Physical activity that can be incorporated into everyday life, such as brisk walking and cycling, has been found to be as effective for weight loss as supervised exercise programmes.<sup>11</sup> However, over a third of adults report they are not currently active at recommended levels.<sup>12</sup> More accurate objective measurements show that the true proportion of people who are insufficiently active is likely to be much higher than this.<sup>13</sup>

Creating an environment where people actively choose to walk and cycle as part of everyday life can have a significant impact on public health and may reduce inequalities in health. It is an essential component of a strategic approach to increasing physical activity and may be more cost-effective than other initiatives that promote exercise, sport and active leisure pursuits.<sup>14</sup>

More walking and cycling also has the potential to achieve related policy objectives:

- supports local businesses and promotes vibrant town centres
- provides a high-quality, appealing public realm
- reduces car travel, air pollution, carbon dioxide emissions and congestion
- reduces road danger and noise
- increases the number of people of all ages out on the streets, making public spaces seem more welcoming and providing opportunities for social interaction and children’s play
- provides an opportunity for everyone, including people with impairments, to experience and enjoy the outdoor environment.<sup>15</sup>

There is an extensive evidence base for effective action on active travel.<sup>11,16-18</sup> The most relevant and recent review has been conducted by NICE, looking specifically at local measures to promote active transport.<sup>15</sup>

#### **5. What tools are available?**

##### **Local transport plans**

Top tier local authorities are obliged by the Department of Transport (DfT) to prepare

local transport plans (LTPs) as forward-looking plans covering (typically) a five-year period that are intended to:

- outline the current situation in the area regarding transport, accessibility and pollution
- set out challenging but achievable objectives
- set out the programme for achieving these objectives
- outline any proposals for national funding from the DfT. LTPs provide an opportunity for integrated transport authorities to state their commitment to active travel, and to set out strategies to increase the proportion of people who travel by foot and bicycle

### **Walking and cycling in the local transport plan**

Hereford has significantly shifted the focus on sustainable transport in its transport plan. Proposals had existed for some years to build a ring road around the town to ease congestion in the city centre. This presented a major challenge for the local authority, as it had a potential impact on all aspects of local planning. There was also opposition from many sections of the community, which meant the council had to rethink its approach to transport planning.

The public health team initiated 'learning sets' on walking and cycling, and engaged the transport team. This coincided with funding for sustainable transport initiatives from DfT's local sustainable transport fund. A range of active travel options were explored, including Destination Hereford – a sustainable transport programme, including personalised travel planning. The new LTP has a significantly enhanced focus

on active travel, which is now becoming a core aspect of the approach to transport planning in the town.

The funding allocated to active travel is much lower than that allocated to other modes.<sup>19</sup> NICE has recommended providing adequate funding for schemes that support walking and cycling for transport.<sup>20</sup> Detailed guidance on this is available from DfT and DH.<sup>21</sup>

### **Planning policy**

Local authorities have important influence over whether planning applications for new developments prioritise the need for people to be physically active as part of their daily life. People are more likely to walk and cycle if there are destinations (such as shops and employment) within walking and cycling distance. This is a key element of the National Planning Policy Framework.<sup>8</sup>

Similarly, safe, accessible and pleasant outdoor spaces can enhance children's active outdoor play. Useful resources on creating places for children's play are available from Play England.<sup>22</sup>

Active Design is a useful set of master planning and design guidelines produced by David Lock Associates for Sport England, supported by the former Commission for Architecture and the Built Environment, DH and the Department for Culture, Media and Sports. It integrates the design, health and transport agendas by providing illustrated guidance on delivering developments with good access to formal and informal recreational activities and destinations.<sup>23</sup>

### **Joint strategic needs assessments (and other local plans)**

Joint strategic needs assessments (JSNAs), joint health and wellbeing strategies, community strategies and other local

strategies and needs assessments present opportunities to consider the roles of walking and cycling. These opportunities all present numerous potential benefits for policy areas such as air quality, community safety, social inclusion, road safety, and public health.<sup>14</sup>

The Health Impact of Physical Inactivity (HIPI) tool provides input to JSNAs. It allows users to estimate the impact of different levels of physical activity on health outcomes in local authority areas.<sup>24</sup>

Integrating physical activity into JSNAs should ensure that programmes are based on an understanding of:

- the local population and the journeys people take using all modes of transport
- the opportunities available to increase people's level of walking and cycling, given the right circumstances
- the behaviour and preferences of existing walkers and cyclists
- the needs of people with impairments
- general factors influencing people's behaviour such as their attitudes, existing habits, what motivates them and their barriers to change<sup>15</sup>

Detailed guidance that can help to ensure pedestrians and cyclists are considered before other user groups in the design process is available in DfT's 'Manual for streets'<sup>26</sup> and 'Manual for streets 2' from the Chartered Institution of Highways and Transportation.<sup>27</sup>

### Road safety strategies

Local authority initiatives on road safety are key opportunities to create better conditions for walking and cycling.<sup>28</sup> Moving to a default

### Bikes lead the way in Hackney

Hackney has been called the cycling capital of London. Recent research showed more residents commuted by bike than car. Cycling has risen in 29 out of 33 London Boroughs since 2001, with Hackney having the highest proportion of commuter journeys taken by bike at over 15%.<sup>22</sup>

A number of factors have contributed to the rise of cycling in London – the congestion charge (introduced in 2003), significant investment in cycle infrastructure across the city, and the introduction of the Barclays cycle hire scheme. In Hackney, progress has also been helped by a strong pro-cycling community and support from the local authority, which has prioritised cycling and walking over private car use for a number of years through changes to the physical environment.

20mph speed limit for streets where people live, work and shop may be the most effective approach available at present. DfT found that 71% of survey respondents favoured 20mph limits in residential streets.<sup>29</sup> Recent regulatory changes have made it easier for local authorities to implement 20mph zones and limits, and many councils have acted on this. The 20's Plenty campaign reports that

### 20mph: saving lives while creating space for cycling walking and play

More than four-fifths of child casualties occur on roads with a 30mph speed limit. The North West Public Health Observatory undertook a modelling exercise to investigate the impact of implementing 20mph traffic speed zones in residential areas (other than main roads) across the North West.<sup>31</sup> This showed that 140 killed or seriously injured children could have been prevented in the region each year between 2004 and 2008.

12 million people live in local authorities that have adopted a 20mph policy.<sup>30</sup> Engineering approaches, such as traffic calming and designating streets as home zones where pedestrians take precedence, can also be used to create safer road environments.

### **Transport and health: a true partnership**

Professionals from transport and health in Leicester have collaborated on a strategic approach to promoting cycling and walking. Building on research into barriers to cycling and walking, they developed a targeted approach to increasing levels of cycling and walking in neighbourhoods with a higher prevalence of conditions associated with physical inactivity.

This was combined with partnership development work and coordination across the authority and beyond. For example, the team made sure that referral pathways for lifestyle services included walking and cycling, so that people completing the weight management programme could be referred to a ramblers walking project.

Public health funding helped to establish a neighbourhood model including cycle training maps and Dr Bike sessions. A programme of rides led by British Cycling was enhanced to increase people's confidence and competence for recreational cycling and commuting. Cooperation with the local sustainable transport fund programme led to pooled funding to upgrade and adopt part of the national cycle network.

### **Section 106 agreements**

These are voluntary agreements between local planning and authorities and developers (under section 106 of the Town and Country Planning Act 1990) that are legally binding and can be an important factor in the

decision whether or not to grant planning consent. They are also known as 'planning obligations'. These may be used for a number of purposes, including mitigating the impact of a development by, for example, requiring a developer to fund bike paths to a new housing estate.<sup>32</sup>

The use of Section 106 agreements may change in the light of the new community infrastructure levy (CIL). The CIL is a tax on development, and funds infrastructure. While S106 agreements are at the discretion of local planning authorities (in agreement with the developer), the CIL is based on a fixed charging schedule linked to the size of the development.

### **Dedicated programmes to support active travel**

The cycling demonstration towns programme achieved increases in cycling in six towns across England. Between 2006 and 2009 there was a mean increase in cycling in all the towns of 27%. Economic analysis showed a benefit-cost ratio of at least 2:1.<sup>36</sup> This was achieved through comprehensive town-wide programmes, based on raising local investment to between £5 and £10 per person per year, a funding level common in many continental European cities and generally accepted as the minimum required to increase cycling.<sup>37</sup>

The Welsh Assembly recently agreed an Active Travel Bill, the first of its kind in the world, which requires local authorities to continuously improve facilities and routes for pedestrians and cyclists. Legislation would be required to adopt this approach in England.

### **WHO Health Economic Assessment Tool (HEAT) for walking and cycling**

HEAT is an online tool that can be used to conduct an economic assessment of

### **Shared space promotes walking and cycling (and calms traffic)**

The Cheshire village of Poynton has transformed in the last two years after building some of the most radical shared-space road infrastructure seen in the UK. Some 27,000 vehicles, 6% of them HGVs, were passing through the village each day, making life a misery.<sup>33</sup>

Rather than use traditional traffic engineering, the local council employed shared-space designers to create a sequence of informal crossings based on pedestrian desire lines where people actually choose to cross, a central reservation to help pedestrians cross narrow traffic lanes and keep vehicle speeds low, and repaved footways, including private shop forecourts, to enhance the pedestrian environment.<sup>30</sup>

Early signs are that the scheme has revitalised the village and been welcomed by motorists and pedestrians.<sup>35</sup> It has received a number of design awards. A full evaluation is due late 2013, which will assess whether levels of walking and cycling in the scheme and surrounding area have changed.

the health benefits of walking or cycling. It estimates the value of reduced mortality that results from specified amounts of walking or cycling. The tool can value projected increases in cycling or walking that result from new programmes or infrastructure, or to evaluate measured changes. The resulting figures can be used to advocate increased investment, or can be integrated into more comprehensive economic assessments. DfT has adopted the HEAT methodology within its approach to economic appraisal of transport schemes.<sup>38</sup>

### **Cycling in Glasgow: what's it worth?**

Glasgow Centre for Population Health (GCPH) used HEAT to estimate the value of existing levels of cycling, using data on travel to work or study from Scotland's 2001 Census and annual cordon counts of cyclists. Results show the estimated mean annual benefit of cycling levels in the city was just over £3 million in 2009, increasing to over £4 million by 2012. This is considered a conservative estimate as the tool only accounts for reduced mortality and not reduced morbidity or other health benefits associated with cycling. The HEAT results were launched at a GCPH research seminar in May 2013, attracting extensive media coverage and the attention of local decision makers. It is hoped that the findings of the study will influence future local development plans and wider efforts to improve the health of the city's population.<sup>39</sup>

## **6. Ideas for action**

Public health professionals and others who wish to promote physical activity and active travel in their area to support healthier lifestyles may find the following actions helpful:<sup>15</sup>

### **Strategic leadership: local authority and health and wellbeing boards**

- identify a senior councillor responsible for active travel to be a champion on behalf of the local authority, provide leadership, and work with district councillors in two-tier areas to be responsible for promoting walking and cycling
- ensure the JSNA, the joint health and wellbeing strategy, and other local needs assessments and strategies, take into account opportunities to increase walking and cycling. Recent NICE guidance provides useful advice on reducing impediments to active travel



### **Working across the local authority**

- work in partnership with colleagues in the transport department and when the local transport plan is reviewed (which takes place every five years), help ensure it prioritises active travel. Shift the balance of investment to reflect the proportion of journeys undertaken by bike and on foot
- set realistic but ambitious targets for walking and cycling within the local authority, and consider a dedicated town-wide programme along the lines of the sustainable travel towns and cycling demonstration towns
- public health colleagues should work with transport colleagues to review the road safety strategy, benchmark it against the WHO guidance, [www.euro.who.int/\\_\\_data/assets/pdf\\_file/0003/87564/E82659.pdf](http://www.euro.who.int/__data/assets/pdf_file/0003/87564/E82659.pdf), and commit to a default 20mph speed limit where people live, work and shop
- check local policies for their impact on physical activity, including those relating to: air quality; community safety; disability; education; environment (including sustainability and carbon reduction); health and wellbeing; housing; land use, planning and development control; regeneration and economic development and transport
- review proposed schemes to see how they could be enhanced from a pedestrian or cyclist perspective at little cost by, for example, making pavements wider
- provide a safer, more appealing environment for walking and cycling wherever possible. This should support all groups, including people from deprived communities and people with current low levels of walking and cycling

### **Supporting data and information**

- review all the publications in the 'additional resources section'. These contain detailed advice and case studies
- consider training for public health and planning colleagues in the use of the HEAT tool for walking and cycling to estimate the value of different scenarios of increasing walking and cycling levels and working with transport planners on how public health evidence can support their work

### **Evaluation**

- evaluation should be an element of any approach that is not of proven value or effectiveness. Walking and cycling projects should be evaluated where feasible, including their impact on health inequalities. Routine data collection should be built in to programmes to support this

## Additional resources

‘Walking and cycling: local measures to promote walking and cycling as forms of travel or recreation.’ 2012 guidance from NICE that provides clear guidance specifically written for local authorities, based on the most recent evidence of effectiveness. Available from [guidance.nice.org.uk/PH41/Guidance/pdf/English](https://www.guidance.nice.org.uk/PH41/Guidance/pdf/English)

‘Physical activity and the environment.’ This NICE guidance specifically focuses on ways to modify the built and natural environments to support physical activity – including walking and cycling. Includes a chapter focusing on transport interventions. Published in 2008. Available from [guidance.nice.org.uk/PH8/Guidance/pdf/English](https://www.guidance.nice.org.uk/PH8/Guidance/pdf/English)

‘Take action on active travel. Why a shift from car-dominated transport policy would benefit public health.’ This briefing is produced by Sustrans and the Association of Directors of Public Health, and signed by over 100 leading UK public health and sustainable transport agencies. It sets out a comprehensive list of actions to promote active travel at national and local government level. Published in 2007. Available from [www.fph.org.uk/uploads/Take\\_action\\_on\\_active\\_travel.pdf](https://www.fph.org.uk/uploads/Take_action_on_active_travel.pdf) Review of progress published in 2012. Available from [www.adph.org.uk/category/atpa/](https://www.adph.org.uk/category/atpa/)

‘Increasing walking and cycling: briefings for local authorities.’ Four briefings have been published by Public Health England, in support of the national Active Travel and Health group. The briefings are in the form of short Powerpoint presentations and bring together all the latest evidence, policy and ideas on active travel. They are designed to help local authorities make the case for action

to increase walking and cycling. They have been produced in consultation with local authorities and with the input of a wide group of people interested in active travel. Sets are available targeted at elected members; directors of public health; and directors of transport. Published in 2013. Available from [www.noo.org.uk/slide\\_sets/activity](https://www.noo.org.uk/slide_sets/activity)

The UK Health Forum’s website contains a wealth of useful information on active travel and the environment, including a report specifically on creating and enhancing places for healthy active lives.<sup>40</sup> [www.ukhealthforum.org.uk](https://www.ukhealthforum.org.uk) and [nhfshare.heartforum.org.uk/RMAssets/NHFreports/BuildingHealth\\_Main.pdf](https://nhfshare.heartforum.org.uk/RMAssets/NHFreports/BuildingHealth_Main.pdf)

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