

PUBLIC HEALTH GUIDANCE

FINAL SCOPE

1 Guidance title

Walking and cycling: local measures to promote walking and cycling as forms of travel or recreation

1.1 *Short title*

Walking and cycling

2 Background

- a) The National Institute for Health and Clinical Excellence (NICE) has been asked by the Department of Health (DH) to develop public health programme guidance on local measures to promote walking and cycling¹ as forms of travel or recreation.
- b) The guidance will consider the:
 - health impacts of increasing walking and cycling
 - wider environmental and economic impacts arising from promoting walking and cycling as a form of travel (for instance, a reduction in carbon emissions or congestion).
- c) This guidance will support a number of related policy documents including:
 - 'Active travel strategy' (Department for Transport 2010a)
 - 'Creating growth, cutting carbon: making sustainable local transport happen' (Department for Transport 2011)

¹ Walking and cycling require different resources. The barriers restricting uptake and the interventions that can effectively promote these activities are also different.

- 'Fair society, healthy lives' (Marmot Review 2010)
 - 'Healthy lives, healthy people: our strategy for public health in England' (DH 2010)
 - 'Improving outcomes: a strategy for cancer' (DH 2011)
 - 'Mainstreaming sustainable development: the government's vision and what this means in practice' (Department for Environment, Food and Rural Affairs 2011a)
 - 'No health without mental health: a cross-government mental health outcomes strategy for people of all ages' (HM Government 2011).
 - 'The natural choice: securing the value of nature' (Department for Environment, Food and Rural affairs 2011b)
 - 'Transport and health resource: delivering healthy local transport plans' (DH and Department for Transport 2011).
- d) This guidance will provide recommendations for good practice, based on the best available evidence of effectiveness and cost effectiveness. It is aimed at professionals, commissioners and managers working within local authorities, the NHS and the wider public, private, voluntary and community sectors. It is particularly aimed at those involved in physical activity, environment and transport planning. It is also aimed at: those involved in land use planning and development control, private developers, estate managers, highways authorities, employers and those responsible for workplace travel and carbon reduction plans. It will also be of interest to people who promote walking and cycling in an unpaid capacity, those who want to walk or cycle more (or use motorised transport less) and other members of the public.

- e) The guidance will complement NICE guidance on how to encourage and support physical activity, in particular ‘Physical activity and the environment’ (NICE public health guidance 8). It will also update recommendation 6 on pedometers and walking and cycling schemes from ‘Four commonly used methods to increase physical activity’ (NICE public health guidance 2). For further details see section 6.

This guidance will be developed in line with the NICE public health programme process. (For details see www.nice.org.uk/aboutnice/howwework/developingnicepublichealthguidance/developing_nice_public_health_guidance.jsp).

3 The need for guidance

- a) Physical activity is essential for good health (DH 2004). It can help reduce the risk of coronary heart disease, stroke and type 2 diabetes by up to 50%. It also keeps the musculoskeletal system healthy and promotes mental wellbeing. However, based on self-reporting, 61% of men (71% of women) in England aged 16 and over do not meet the national recommended levels² (Craig et al. 2009). The proportion of men who are physically active enough decreases markedly as they get older (from 53% at age 16–24 to 16% at 65 plus). The level of activity among women is considerably lower once they reach 65 plus. (Around 12% of women over 65 meet the recommended levels compared to 28–36% of younger women.) Sixty three per cent of girls (72% of boys) aged between 2 –15 report being physically active for 60 minutes or more on 7 days a week. (Girls’ activity declines after the age of 10.) (The Information Centre 2007). However, objective data suggests this is an overestimate. Only 2.5% (boys 5.1%, girls 0.4%) actually did more than 60 minutes of moderate to vigorous physical activity

² The recommended level for adults is to accumulate at least 30 minutes of at least moderate-intensity physical activity on 5 or more days of the week (DH 2004).

daily (Riddoch et al. 2007). Black African and Asian adults and black Caribbean women are less likely to meet the recommended activity levels of physical activity than the general population (The Information Centre 2006).

- b) Walking is reported to be the most common, and cycling the fourth most common recreational and sporting activity undertaken by adults in Britain (Fox and Rickards 2004). Among women of all ages, walking (for any purpose) is the most important way of achieving the recommended physical activity levels. (It accounted for between 37% and 45% of the total time they spend doing moderate or vigorous physical activities [MVPA]). It is also one of the most important physical activities for men of all ages – accounting for between 26% and 42% of total MVPA (Belanger et al. 2011).
- c) Of all trips made in Great Britain in 2009, 20% covered less than 1 mile. More than half (56%) of car journeys were less than 5 miles (Department for Transport 2010b). It is estimated that, on an average day in London, around 4.3 million trips are 'potentially cyclable' (Transport for London 2010). However, in Britain, the average time spent travelling on foot or by bicycle has decreased, from 12.9 minutes per day in 1995/97 to 11 minutes per day in 2007 (Department for Transport 2010c). Cycle use in Britain is lower than in other European Union (EU) countries. It is estimated that bicycles are used for 2% of journeys in Britain compared to about 26% of journeys in the Netherlands, 10% in Denmark and 5% in France (Ministry of Transport, Public Works and Water Management 2009).
- d) Changes in the number of people walking and cycling could have an impact on health, the environment and economy. These may be positive or negative, and can be experienced by individuals or populations. Health outcomes include increased physical activity

and changes to conditions such as obesity, cardiovascular disease (CVD), type 2 diabetes, some cancers and mental wellbeing. Cycling and walking are also important ways for people to get to local places and services (such as education, employment, shops, healthcare and recreation). This, in turn, could boost the local economy while having a positive impact on the environment. For example, a decision to cycle or walk rather than drive reduces the emission of air pollutants and carbon dioxide.

- e) Walking and cycling may have unintended consequences, some of which may be counter-intuitive. For example, deciding to cycle might replace another more intense activity (such as going to the gym) which may result in an overall reduction in physical activity. In addition, walking or cycling, rather than driving, may result in a different level of exposure to air pollution. Generally, cyclists and pedestrians experience higher rates of injuries than motorists (Department for Transport 2010b). However, there is also some evidence to support the hypothesis that increasing the number of cyclists reduces the risk of injury, possibly by making drivers and cyclists more familiar with each other (Jacobsen 2003). The decision to drive rather than walk may expose others to risk of injury from a collision.
- f) Motorised transport in urban areas is associated with considerable costs. Congestion, poor air quality, collisions and physical inactivity in English urban areas each cost around £10 billion a year (Department for Transport 2009). The cost of greenhouse gas emissions and the annoyance associated with noise are smaller, but still significant. In the case of greenhouse gases, costs are expected to rise sharply in future years (Department for Transport 2009).
- g) Interventions to promote walking or cycling may have an impact on health inequalities. For instance, the change experienced as a

result may vary for people with limited mobility. Ensuring planning decisions improve access on foot or by cycling may help those who are unable to drive. Changes in vehicle use may alter the risk of injury – which itself varies significantly according to people’s socioeconomic background. As exposure to air pollution also varies across the social gradient, so changes in the level of pollutants may be more significant for some groups than others.

4 The guidance

Public health guidance will be developed in line with NICE processes and methods. For details see section 5.

This document defines exactly what this guidance will (and will not) examine, and what the guidance developers will consider. The scope is based on a referral from the DH (see appendix A).

4.1 *Who is the focus?*

4.1.1 Groups that will be covered

Everyone including, where the evidence permits, specific groups (for instance, those with impaired mobility) or those undertaking particular types of journey (for instance, journeys to work).

4.1.2 Groups that will not be covered

None.

4.2 *Activities*

4.2.1 Activities/measures that will be covered

This guidance will consider local interventions which aim to raise awareness of, encourage or increase uptake of, walking and cycling for recreational and travel purposes. It will also consider local interventions which aim to reduce the barriers to these activities. The guidance will include those targeted at particularly vulnerable and high-risk groups, where the evidence permits.

Interventions aimed at individuals and those targeting population-level attitudes, norms and behaviour will be included, along with multi-component approaches that aim to do both. (The latter may include changes to the physical environment.)

Interventions may include:

- a) Local, media-based activities (including broadcast, print, telephone, Internet and digital media) to raise awareness of the benefits and convenience of walking and cycling.
- b) Other local media-based activities that aim to change behaviour using accepted theories of behaviour change.
- c) Promotional activities, events and challenges (such as group rides, walking groups and events linked to sport).
- d) Resource provision (such as cycle hire, pedometers, cycle purchase schemes or safety equipment).
- e) Information resources (such as maps, route or travel plans, road safety leaflets and personalised travel planning).
- f) Skills training (such as cycle training, organised rides or walks and safety tips).
- g) Integrated programmes combining environmental and behavioural interventions.

(Note: 'local' may refer to a geographically defined area larger than that covered by a single local authority such as greater London, Manchester or Merseyside. It may also refer to a smaller area such as a housing estate or small town.)

4.2.2 Logic model

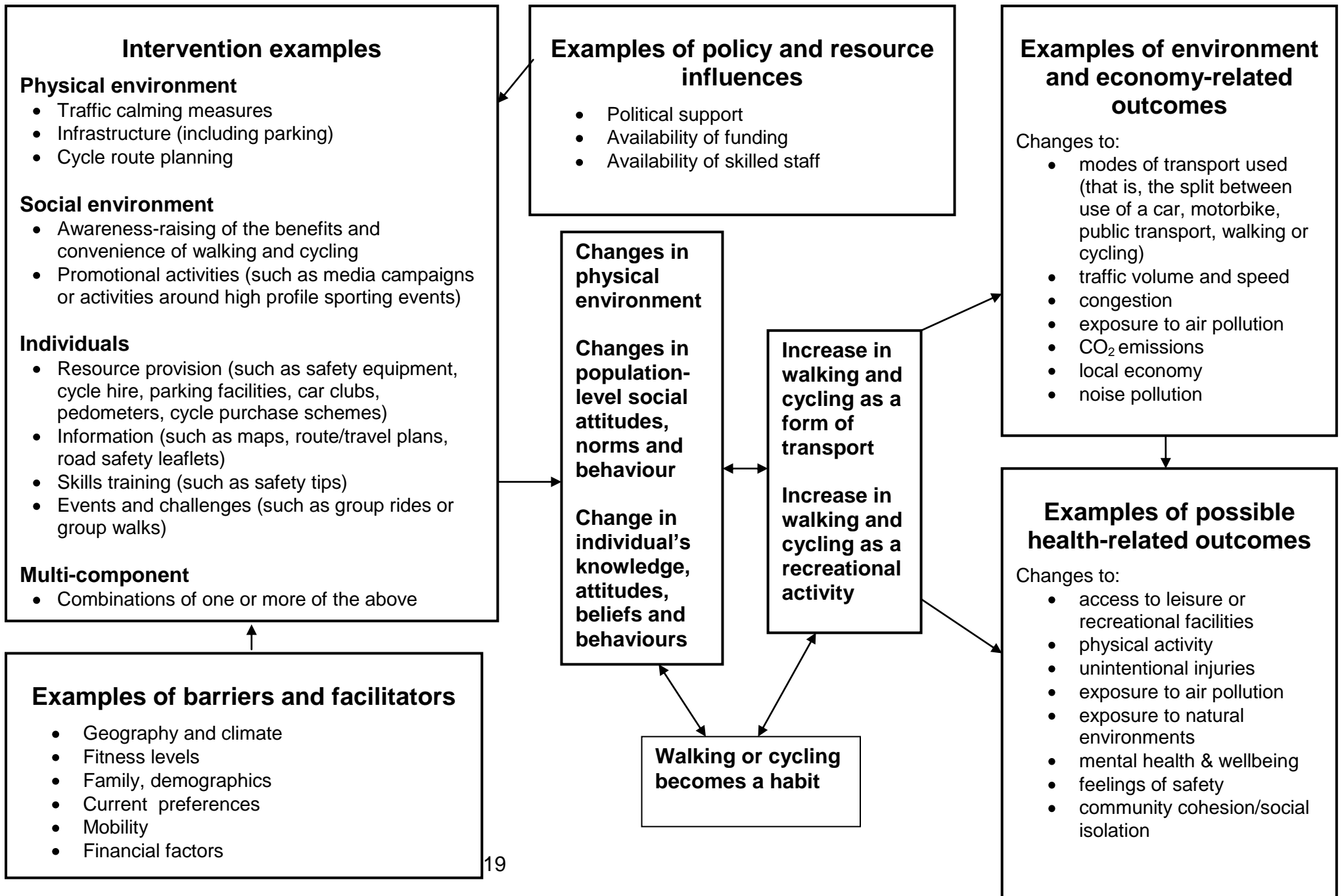
The adapted model (Sallis et al. 2006) focuses on local factors and interventions which can impact on walking and cycling rates. It sets out the

conceptual link between local interventions targeting the physical or social environment, or individuals, and the intermediate outcomes in relation to walking and cycling. These outcomes, in turn, link to impacts on health, the environment and other areas (such as the economy).

The model also highlights how local policy, resources and other factors influence the provision and uptake of local interventions. For example, a decision to use cycling as a form of transport can be influenced by the level and speed of traffic, attitudes to safety, the ability to plan and execute a route, and the ability to carry baggage.

(Please note: although national factors such as legislation and fuel duty also have an important impact on walking and cycling, these are not included here.)

As a model it presents a simplified version of reality to aid understanding. It does not attempt to provide comprehensive lists of, for instance, interventions, health or environmental outcomes. Inclusion of an intervention does not necessarily imply that it is included in the scope of this guidance.



4.2.3 Comparators

The interventions will be compared with 'doing nothing' or current practice. Where data permit, the effectiveness and cost effectiveness of different types of interventions will be compared.

4.2.4 Economic approach

The economic analysis will use a public sector perspective or, if required, a societal perspective. In addition to undertaking a cost–utility analysis, the anticipated impacts may necessitate inclusion of a cost–benefit analysis. A cost–consequence analysis will also be considered.

4.2.5 Activities/measures that will not be covered

- a) National policy, fiscal and legislative changes. For example, fuel and vehicle duty, national speed limits and drink-driving or cycle-helmets legislation.
- b) Local interventions which solely aim to change the physical environment (such as traffic-calming measures, provision of cycling parking facilities or construction of cycle routes). These interventions have been considered in existing NICE guidance (public health guidance 8) – see section 6 for further details.
- c) Brief advice given in primary care to increase people's physical activity levels. This has been considered in existing NICE guidance (public health guidance 2) – see section 6 for further details.
- d) Interventions which solely report on sports-related outcomes, such as training programmes which report on someone's sport performance.

4.3 Key questions and outcomes

Below are the overarching questions that will be addressed along with some of the outcomes that would be considered as evidence of effectiveness:

Question: Which local interventions are effective and cost effective at promoting and increasing cycling and walking for recreational and travel purposes?

Expected outcomes: Changes in individual walking and cycling rates for travel or recreation, increase in knowledge and change of attitude towards walking and cycling for travel or recreational purposes.

Question: Which local interventions are effective and cost effective at changing population-level norms and behaviour in relation to cycling and walking for recreational and travel purposes?

Expected outcomes: Changes in walking and cycling rates for travel or recreation, changes in rates of 'unintended consequences' (for instance, injuries or exposure to air pollution), changes in environmental or economic consequences (for instance, congestion or time lost at work).

Question: What factors help or hinder the planning and delivery of walking and cycling-related interventions for recreation or travel purposes?

Expected outcomes: The views and experience of those planning and delivering interventions on the factors that aid implementation, the barriers they face and how to overcome those barriers. Barriers might include undervaluing the local benefit of cycling or walking and public attitudes.

Question: What factors help or prevent people from walking and cycling for recreation or travel?

Expected outcomes: The public's views and experience of what prevents people from cycling and walking – and how to overcome those barriers (for example, it may depend on volume of traffic or on knowledge of local routes).

Question: What health and other outcomes may be achieved by increasing cycling and walking for travel and recreation?

Expected outcomes: Changes in how physically active someone might be overall and changes in their general wellbeing. Changes in injury rates.

Changes in air and noise pollution and emission of greenhouse gases. Local economic benefits such as: reduced time lost from congestion, increased productivity from a fitter workforce, reduced sickness absence, increased local economic activity.

4.4 Status of this document

This is the final scope, incorporating comments from a 4-week consultation which included a stakeholder meeting on 17 May 2011.

5 Further information

The public health guidance development process and methods are described in 'The NICE public health guidance development process: An overview for stakeholders including public health practitioners, policy makers and the public (second edition, 2009)' available at www.nice.org.uk/phprocess and 'Methods for development of NICE public health guidance (second edition, 2009)' available at www.nice.org.uk/phmethods

6 Related NICE guidance

Published

Preventing type 2 diabetes: population and community interventions, NICE public health guidance 35 (2011). Available from www.nice.org.uk/guidance/PH35

Preventing unintentional road injuries among under-15s: road design. NICE public health guidance 31 (2010). Available from www.nice.org.uk/guidance/PH31

Strategies to prevent unintentional injuries among under-15s. NICE public health guidance 29 (2010). Available from www.nice.org.uk/guidance/PH29

Prevention of cardiovascular disease. NICE public health guidance 25 (2010). Available from www.nice.org.uk/guidance/PH25

Promoting physical activity for children and young people. NICE public health guidance 17 (2009). Available from www.nice.org.uk/guidance/PH17

Mental wellbeing and older people. NICE public health guidance 16 (2008). Available from www.nice.org.uk/guidance/PH16

Promoting physical activity in the workplace. NICE public health guidance 13 (2008). Available from www.nice.org.uk/guidance/PH13

Community engagement. NICE public health guidance 9 (2008). Available from www.nice.org.uk/guidance/PH9

Physical activity and the environment. NICE public health guidance 8 (2008). Available from www.nice.org.uk/guidance/PH8

Behaviour change. NICE public health guidance 6 (2007). Available from www.nice.org.uk/guidance/PH6

Four commonly used methods to increase physical activity. NICE public health guidance 2 (2006). Available from www.nice.org.uk/guidance/PH2

Under development

Preventing the progression of pre-diabetes to type 2 diabetes in adults (publication expected May 2012)

Appendix A Referral from the Department of Health

The Department of Health asked NICE to produce guidance on:

'An assessment of cost effective local measures to promote walking and cycling... The guidance should focus upon active travel, but consideration should also be given to extending this to recreational walking and cycling. Alongside health impacts, it would be helpful if the guidance could also consider the benefits of walking and cycling to the wider economy (reduced congestion, climate change, etc.) '

Appendix B Potential considerations

It is anticipated that the Programme Development Group (PDG) will consider the following issues:

- Whether the intervention is based on an underlying theory or conceptual model.
- Whether the intervention is effective and cost effective in terms of health, environmental and economic outcomes (such as air pollution and time lost through traffic congestion).
- Whether effectiveness and cost effectiveness varies according to:
 - the diversity of the population (for example, in terms of the user's age, gender, faith/religion or ethnicity)
 - the person delivering the intervention
 - the way the intervention is delivered (for example one-to-one or group based)
 - whether the target audience is involved in planning, design or delivery
 - the content, frequency, intensity, length and duration of the intervention
 - where it takes place and whether it is transferable to other settings
 - the point in the life course when interventions are delivered (for instance when moving home or changing employment, school or following major life events)
 - the type of journey undertaken (for instance whether interventions focussing on transport to work are more effective than recreation purposes).
- Any trade-offs between equity and efficiency.
- Environmental, social, economic and cultural factors that prevent – or support – the uptake of cycling and walking for recreation or travel.

- Current practice.
- Availability and accessibility for different groups.
- Whether the way interventions are packaged into programmes impacts on long-term success.
- Whether effectiveness, in terms of reduced carbon dioxide emissions, varies according to the length of journeys targeted.
- Whether other interventions (for instance, changes to the physical environment) are important to long term success.

Appendix C References

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Craig R, Mindell J, Hirani V (2009) *Health survey for England 2008*. London: The Health and Social Care Information Centre

Department for Environment, Food and Rural Affairs (2011a) *Mainstreaming sustainable development: the government's vision and what this means in practice*. London: Department for Environment, Food and Rural Affairs

Department for Environment, Food and Rural Affairs (2011b) *The natural choice: securing the value of nature*. London: Department for Environment, Food and Rural Affairs

Department for Transport (2009) *The wider costs of transport in English urban areas in 2009*. London: Department for Transport

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Ministry of Transport, Public Works and Water Management (2009) Cycling in the Netherlands. The Netherlands: Ministry of Transport, Public Works and Water Management

Riddoch CJ, Mattocks C, Deere K et al. (2007) Objective measurement of levels and patterns of physical activity. *Archives of Disease in Childhood* 92: 963–9

Sallis JF, Cervero RB, Ascher W et al. (2006) An ecological approach to creating active living communities. *Annual Review of Public Health* 27: 297–322

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The Information Centre (2008) Health survey for England 2007. Leeds: The Information Centre

Transport for London (2010) Analysis of cycling potential. London: Transport for London