

NHS Health Scotland

Commentary on NICE Public Health Guidance 8:

Promoting and creating built or natural environments that encourage and support physical activity

Summary

27 June 2008

Introduction

The National Institute for Health and Clinical Excellence (NICE) in England produces two types of guidance on public health topics: Public Health Intervention Guidance (interventions being defined as involving single measures, eg GP advice to patients to be more active) and Public Health Programme Guidance (on broader activities, eg strategies for smoking cessation). In Scotland, such Guidance has no formal status but attracts interest and provides a useful source of reviewed evidence.

As part of its role in promoting and supporting evidence-informed action for health improvement in Scotland, NHS Health Scotland (HS) produces Commentaries on NICE Public Health Guidance. Each Commentary, with Comments/Conclusions on the Recommendations set out in the NICE Guidance, is produced in collaboration with an appropriately constituted specialist Reference Group with members from within and beyond HS. The process involves consideration of the evidence cited and the Recommendations presented in the NICE Guidance, in the context of policy and practice in Scotland.

This Summary presents Comments/Conclusions from the HS Commentary on NICE Public Health Guidance 8 (NICEPHG008 – Public Health Programme Guidance), published in January 2008, entitled *Promoting and creating built or natural environments that encourage and support physical activity*. These Comments/Conclusions are intended to help organisations, professionals and others make use of the NICE Guidance in a Scottish context. The Commentary does not in itself constitute formal Guidance or Guidelines. Its scope and contents are limited by those of the NICE Guidance on which it is based. The Commentary should not be seen as a full action plan or full basis for a health improvement strategy on the subject area concerned, but rather as one evidence-informed contribution to such an action plan or strategy.

The full Commentary and this Summary will be made available in the 'Evidence' pages of the 'Scotland's Health' section of Health Scotland's website (www.healthscotland.com).

General NHS Health Scotland Notes

1. NICEPHG008 indicates: that physical activity contributes to wellbeing and is essential for good health; that increasing population physical activity levels will help in the prevention and management of over 20 conditions and diseases – including coronary heart disease (CHD), diabetes, cancer and obesity; and that physical activity can help to improve mental health and can help older people to maintain independent lives.
2. NICEPHG008 points out that a range of social, cultural and environmental factors can influence physical activity levels, and that the overall impact may be synergistic rather than simply cumulative. Within that broader context, NICEPHG008 focuses on the physical environment, built and natural. This reflects, for example, the facts that: the design and layout of towns and cities can encourage or discourage access on foot or by bicycle; building design can encourage or discourage the use of stairs; and access to parks, the countryside and other green space, as well as specific features of green space, can help people to be more active. Many components of the physical environment can be modified by public sector agencies through changes to policy and practice, and other sectors also have parts to play.
3. In arriving at the Recommendations set out in NICEPHG008, the Programme Development Group (PDG) concerned took account of evidence of effectiveness and cost effectiveness, fieldwork data, and comments from stakeholders. The PDG considered all recommended interventions likely to be 'cost effective'.
4. It is important to note that there was a dearth of evidence on how environmental interventions affect the physical activity levels of different groups, so it is not clear what impact NICEPHG008's Recommendations will have on health inequalities. The PDG stressed that the impact on local health inequalities must be taken into account when implementing the Recommendations. The finalised version of NICEPHG008 reflects an equality impact assessment of the draft Guidance. In addition, NICEPHG008 points out that when implementing its Recommendations it is important to pay particular attention to the needs of people whose mobility is impaired, including people with physical disabilities (including wheelchair users), frail older people, and parents or carers of small children.
5. It should also be noted that much of the evidence included in the reviews undertaken for NICEPHG008 came from non-UK studies undertaken in a limited range of settings, and its applicability to the UK needs to be considered. In addition, the evidence primarily related to urban settings, and NICEPHG008 points out that it is important that planners and delivery agencies also consider and address the needs of people living in rural areas.
6. NICEPHG008 highlights a number of other problems encountered in reviewing the available effectiveness evidence. For a number of cited reasons to do with research design, it was difficult to ascertain the extent to which interventions examined were responsible for changes that were found. Physical activity was frequently measured in terms of numbers of users or trips, which are difficult to translate into physical activity levels. Much of the evidence covered only one type of physical activity (eg walking or cycling as a mode or transport), making it difficult to determine whether there was any change in overall physical activity levels. And environmental interventions in one geographical area (eg traffic speed controls) may have unidentified (and potentially negative) knock-on effects in other areas.

7. Scottish contextual points –
- NICEPHG008 is intended for professionals whose activities within the NHS, local authorities and the wider public, private, voluntary and community sectors could impact on the public's physical activity levels. This Commentary is also of relevance to these groups – and to Community Planning Partnerships as collective entities – and to decision makers in all relevant parts of national and local government.
 - Scotland's national physical activity strategy *Let's Make Scotland More Active*, published in 2003, set out the following minimum recommended levels of physical activity.
 - Children should accumulate (build up) at least one hour of moderate activity on most days of the week.
 - Adults should accumulate (build up) at least 30 minutes of moderate activity on most days of the week.
 - The strategy set the following targets for achievement by 2022.
 - 80% of all children aged 16 and under to meet the (above) minimum recommended level of physical activity for children.
 - 50% of all adults aged over 16 to meet the (above) minimum recommended level of physical activity for adults.
 - The 2003 Scottish Health Survey found that 74% of boys (compared with 72% in the 1998 Survey) and 63% of girls (compared with 59% in the 1998 Survey) aged 2-15 participated in physical activity for 60 minutes or more on 7 days a week.
 - The 2003 Scottish Health Survey reported that the proportion of men and women aged 16-74 meeting the recommended level of physical activity for adults had increased significantly from the 1998 Survey – from 41% to 44% in men, and from 30% to 33% in women. However, there is a need for caution in interpreting these figures in view of the lower response rate achieved in the 2003 Survey (it is possible that people who did not respond to the Survey were as a whole less physically active than those who did). Nevertheless, it should be noted that in the 2003 Survey two-thirds of women, and over half of men, in Scotland appeared not to be meeting the minimum recommended level of physical activity.
 - National Travel Survey (NTS) data for Scotland suggest that the average distance walked per person per year (for journeys for which walking was the main mode of transport) fell from 251 miles in 1985/86 to 191 miles in 2005/06. The average distance cycled per person per year (for journeys for which cycling was the main mode of transport) was 17-18 miles between 1985/86 and 1992/94; since then, it has varied between 23 and 30 miles (23 miles in 2005/2006). Due to the small sample size, NTS findings for Scotland are provided for 2- or 3-year periods. Even so, sampling variability is such that small apparent period-to-period changes should be treated with caution.
 - The following Scottish policies, legislation, strategies and documents are of relevance when considering this Commentary and implementation of its Conclusions.
 - *Let's Make Scotland More Active – A Strategy for Physical Activity* (Physical Activity Task Force, 2003) – presenting strategic objectives, priorities, targets and recommendations for increasing physical activity among children and young people, adults, and adults in later life.
 - National Performance Framework – providing a unified vision and set of National Outcomes, Indicators and Targets against which to assess progress against The Scottish Government's overarching Purpose and 5 Strategic Objectives (Wealthier & Fairer, Smarter, Healthier, Safer & Stronger, and Greener). Increasing physical activity levels is of relevance to National Indicators/Targets relating to children's body mass index, adult

mental wellbeing, increased life expectancy at birth in the most deprived areas, reduced mortality from CHD among the under-75s in deprived areas, increased proportion of journeys to work made by public or active transport, and increased proportion of adults making one or more visits per week to the outdoors.

- Sitting within the above National Performance Framework, HEAT (HHealth improvement, Efficiency & governance, Access to services, Treatment) targets for NHSScotland. Increasing physical activity is relevant to the current health improvement targets relating to CHD mortality among the under-75s in deprived areas, and child healthy weight intervention programme completion.
- The Concordat setting out the terms of a new relationship between The Scottish Government and local government, and underpinning the funding to be provided to local government from 2008-09 to 2010-11 – under which Single Outcome Agreements (SOAs) set out the Local Outcomes that each Local Authority in Scotland is seeking to achieve along with its Community Planning partners. The Concordat and SOAs are linked to the National Performance Framework referred to above.
- Scotland's National Transport Strategy (2006) – presenting the long-term vision for transport, together with objectives, priorities and plans, and focusing on the following 3 strategic outcomes setting the context for transport policy making over a 20-year period:
 - o improve journey times and connections between our cities and towns and our global markets to tackle congestion and provide access to key markets
 - o reduce emissions to tackle climate change
 - o improve quality, accessibility and affordability of transport, to give people the choice of public transport and real alternatives to the car.A key development arising from the Strategy, of direct relevance to this Commentary, is the intended creation of a number of sustainable travel demonstration communities across Scotland.
- *National Planning Framework for Scotland* (2004) – a non-statutory planning policy document that looks at Scotland from a spatial perspective and sets out an achievable long-term vision. It provides a national context for development plans and planning decisions, and is intended to inform the ongoing programmes of The Scottish Government, public agencies and local government. It refers to cycling and walking in the context of sustainable transport.
- The Land Reform (Scotland) Act 2003 – Part 1 of which established a new statutory framework for the better provision and management of access which will increase opportunities for responsible outdoor recreation and leisure use.
- Scottish Planning Policies (SPPs) – provide statements of Scottish Government policy on nationally important land use and other planning matters, supported where appropriate by a locational framework. SSPs of key relevance to this Commentary include:
 - o *Scottish Planning Policy 3: Planning for Housing* (2003)
 - o *Scottish Planning Policy 11: Open Space and Physical Activity* (2006)
 - o *Scottish Planning Policy 17: Planning for Transport* (2005).**Note** – Existing National Planning Policy Guidelines (NPPGs) have continued relevance to decision making until such time as they are replaced by an SPP.
- Planning Advice Notes (PANs) – issued by The Scottish Government, these contain information on good planning practice and should be taken into account in considering planning proposals; PANs of key relevance to this Commentary include:

- *Planning Advice Note 65: Planning and Open Space* (2003)
- *Planning Advice Note 75: Planning for Transport* (2005)
- *Planning Advice Note 76: New Residential Streets* (2005).
- *Design for Streets* – The Scottish Government is in the process of producing a document for Scotland comparable to *Manual for Streets* in England and Wales (2007), which gives new advice for the design of residential streets and represents a strong commitment to the creation of sustainable and inclusive public spaces.

NICEPHG008 Recommendations and HS Comments/Conclusions

<p>HS Note:</p>

<p>The Recommendations for action in NICEPHG008 are presented under 5 headings – Strategies, policies and plans; Transport; Public open spaces; Buildings; and Schools. The full text version of this HS Commentary presents the NICE action Recommendations verbatim, with each followed by HS Comments/Conclusions. <u>In this Summary version of the Commentary, composites of the NICEPHG008 action Recommendations and the corresponding HS Comments/Conclusions are presented</u> for the sake of simplicity and clarity. Text taken direct from NICEPHG008 is in plain font; additional or amending HS text is in <i>italics</i>.</p>

A. Strategies, policies and plans

Recommendation 1, *with NHS Health Scotland text in italics*

Who should take action?

- Those responsible for all strategies, policies and plans involving changes to the physical environment. This includes the development, modification and maintenance of towns, urban extensions, major regeneration projects and the transport infrastructure. It also includes the siting or closure of local services in both urban and rural areas.

What action should they take?

- Involve all local communities and experts at all stages of the development to ensure the potential for physical activity is maximised.
- Ensure *development planning and development management give due priority to the need for people (including those whose mobility is impaired) to be physically active as a routine part of their daily life. Ensure local facilities and services are easily accessible on foot, by bicycle and by other modes of transport involving physical activity. Ensure children can participate in physically active play.*
- Assess in advance what impact (both intended and unintended) the proposals are likely to have on physical activity levels. (For example, will local services be accessible on foot, by bicycle or by people whose mobility is impaired?) Make the results publicly available and accessible. Existing impact assessment tools could be used. *Scottish contextual points – The impact assessment tools included in the Strategic Environmental Assessment (SEA) toolkit and the Scottish Transport Appraisal Guidance (STAG) should be used where appropriate. In addition, health impact assessment (HIA) is of relevance here. For information on the Scottish Health Impact Assessment Network, and relevant publications, see www.healthscotland.com/resources/networks/shian.aspx. NHS Health Scotland is currently exploring the feasibility of developing an integrated impact assessment screening tool to aid in considering health, equalities and environmental impacts in the planning and policy development process.*

B. Transport

Recommendation 2, *with NHS Health Scotland text in italics*

Who should take action?

- Those responsible for all strategies, policies and plans involving changes to the physical environment, including local transport authorities, transport planners and local authorities.

What action should they take?

- Ensure pedestrians, cyclists and users of other modes of transport that involve physical activity are given *due* priority when developing or maintaining streets and roads. (This includes people whose mobility is impaired.) Use one or more of the following methods:
 - re-allocate road space to support physically active modes of transport (as an example, this could be achieved by widening pavements and introducing cycle lanes)
 - restrict motor vehicle access (eg by closing or narrowing roads to reduce capacity)
 - introduce road-user charging schemes [*Scottish contextual point – Local Authorities in Scotland have powers to introduce local road charging in their areas. To date, support for such a policy appears to have been limited, with issues such as practicality, perceived benefits and equality being cited.*]
 - introduce traffic-calming schemes to restrict vehicle speeds (using signage and changes to *road* design)
 - create safe routes to *primary and secondary* schools (eg by using traffic-calming measures near schools and by creating or improving walking and cycle routes to schools).

Recommendation 3, *with NHS Health Scotland text in italics*

Who should take action?

- Planning and transport agencies, including *Regional Transport Partnerships* and local authorities.

What action should they take?

- Plan and provide a comprehensive network of routes for walking, cycling and using other modes of transport involving physical activity. These *networks of routes* should offer everyone (including people whose mobility is impaired) convenient, safe and attractive access to workplaces, homes, schools and other public facilities. (The latter includes shops, play and green areas and social destinations.) They should be built and maintained to a high standard.

C. Public open spaces

Recommendation 4, *with NHS Health Scotland text in italics*

Who should take action?

- Designers, managers *and owners of, and those responsible or maintaining,* public open spaces, paths and rights of way (including coastal, forest and riverside paths and canal towpaths).
- Planning and transport agencies including *'Local Authorities, Community Planning Partnerships and Regional Transport Partnerships.*

What action should they take?

- Ensure public open spaces and public paths can be reached on foot, by bicycle and using other modes of transport involving physical activity. They should also be accessible by public transport.
- Ensure public open spaces and public paths are maintained to a high standard. They should be safe, attractive and welcoming to everyone.
- *Maintain or develop open spaces within or close to populated areas where possible.*

D. Buildings

Recommendation 5, *with NHS Health Scotland text in italics*

Who should take action?

- Architects (*including Local Authority architects, and landscape architects*), designers, developers, employers and planners.

What action should they take?

- Those involved with campus sites, including hospitals and universities, should ensure different parts of the site are linked by appropriate walking and cycling routes. (Campuses comprise two or more related buildings set together in the grounds of a defined site.)
- Ensure new workplaces are linked to walking and cycling networks. Where possible, these links should improve the existing walking and cycling infrastructure by creating new, through routes (and not just links to the new facility).

Scottish contextual points – National Indicator 36 within The Scottish Government's National Performance Framework ('increase the proportion of journeys to work made by public or active transport) is of relevance to this Recommendation. Travel Plans are also relevant here. A Travel Plan is a package of measures devised by organisations or workplaces, tailored to the needs of individual sites, and aimed at promoting more sustainable travel choices and reducing reliance on car usage. A Plan can cover a single site or a cluster of organisation. For larger organisations an overarching Travel Plan can standardise measures across many sites. Bespoke assistance is available from the Energy Saving Trust, and advice in the Scottish context will soon be available at www.chooseanotherway.com.

Recommendation 6, *with NHS Health Scotland text in italics*

Who should take action?

- Architects, designers and facility managers who are responsible for public buildings (including workplaces, *hotels* and schools).

What action should they take?

- During building design or refurbishment, ensure staircases are designed and positioned to encourage people to use them.
- Ensure staircases are clearly signposted and are attractive to use. For example, they should be well-lit and well-decorated.

E. Schools

Recommendation 7, *with NHS Health Scotland text in italics*

Who should take action?

- Children's Services, School Sport Partnerships, school governing bodies and head teachers (*subject to adaptation to fit Scottish organisational structures etc*); *Local Authorities (including their education, sports and leisure services), Active School Programmes/Coordinators, and those involved in the design and redesign of schools.*

What action should they take?

- Ensure school playgrounds are designed to encourage varied, physically active play.
- Primary schools should create areas (for instance, by using different colours) to promote individual and group physical activities such as hopscotch and other games. *Note: There are measures beyond painting playground paving that can be used to promote richer opportunities for playground activity.*

Recommendations for Research

Recommendation for Research 1

Who should take action?

Research councils, research commissioners and funders.

What action should they take?

- Fund studies, based on the most rigorous designs possible, to examine the impact that changes to the physical environment have on physical activity levels. The studies should:
 - include initiatives related to urban planning, transport, the natural environment and building design
 - take account of the needs of rural as well as urban populations
 - examine the cost effectiveness of environmental changes that improve physical activity levels.
- Develop theoretical frameworks and methodologies for evaluating the economic benefits of environmental change to encourage physical activity. These should use methods familiar to those outside the health sector (such as cost-benefit analysis) to allow comparison with other environmental interventions. They should also use methods that allow comparison with other health interventions.
- Develop reliable and valid impact assessment methods that can identify changes in physical activity levels resulting from changes to the physical environment.

Recommendation for Research 2

Who should take action?

- Research councils, research commissioners, funders and researchers.

What action should they take?

- Ensure public health outcomes can be identified and attributed as a standard part of research into the links between changes to the physical environment and physical activity levels. Include:
 - control groups or areas
 - appropriate and valid measures, including measures of overall physical activity levels before and after an intervention
 - follow-up periods (ideally, for at least a year)
 - the impact that environmental changes may have outside the target area (such as neighbouring areas)
 - consideration of how interventions can have a different impact on people according to how physically active they were at the outset
 - other factors that may have led to the results.
- Consider the impact of environmental change on health inequalities: how it affects people's physical activity levels according to, for instance, their socioeconomic status, age, gender, disability, ethnicity, religion and sexual orientation.
- Examine the relative contribution of environmental factors and personal characteristics to variations in physical activity levels.

HS Comments/Conclusions on Recommendations for Research

Recommendations for Research supported. In addition, research could usefully be directed at the following questions.

- What impacts on physical activity do potentially relevant environmental interventions that are not primarily designed to affect physical activity levels have? This question has implications in terms of collecting data on physical activity even where that is not the primary focus of an intervention/study.
- What are the effects on physical activity in communities of differing levels of enforcement and compliance, eg in relation to speeding and pavement parking/obstruction?
- What are the current patterns of behaviour in the Scottish population in terms of modes of travel, and how can these best be shifted to more physically active modes?

Scottish contextual point – The sustainable transport demonstration communities initiative will yield relevant information. Collection of baseline data is expected to begin in October 2008 and be completed in January 2009, with reports available within 3 months thereafter. Follow-up surveying is expected to take place and be reported upon 12 months after the baseline exercise.

NHS Health Scotland named officers for NHS Health Scotland Commentary on NICEPHG008

- Dr Graeme Scobie, Evidence for Action (Lead Officer – drafting, and collaboration with Reference Group)
- Dr Andrew Tannahill, Head of Evidence for Action (Sign-off Officer – sign-off on behalf of NHS Health Scotland)

Members of Reference Group for NHS Health Scotland Commentary on NICEPHG008

- Dr Matt Lowther, National Physical Activity Policy Coordinator, Health Improvement Strategy Division, Public Health & Wellbeing Directorate, The Scottish Government.
- Dr Sheila Beck, Principal Public Health Adviser (Evidence for Action), NHS Health Scotland
- Mrs Maureen Kidd, Programme Manager (Physical Activity), NHS Health Scotland
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- Mrs Kirsty Lewin, Sustainable Transport Team, Transport Directorate, The Scottish Government
- Prof Catharine Ward Thompson, Research Professor of Landscape Architecture, Edinburgh College of Art and University of Edinburgh; Director, OPENspace Research Centre, Edinburgh College of Art