NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

PUBLIC HEALTH GUIDANCE

DRAFT SCOPE

1 Guidance title

Prevention of cardiovascular disease in different populations

1.1 Short title

Prevention of cardiovascular disease

2 Background

a) The National Institute for Health and Clinical Excellence ('NICE' or 'the Institute') has been asked by the Department of Health (DH) to develop guidance on a public health programme aimed at preventing cardiovascular disease (CVD) in different populations.

b) NICE public health programme guidance supports implementation of the preventive aspects of national service frameworks (NSFs) where a framework has been published. The statements in each NSF reflect the evidence that was used at the time the framework was prepared. The public health guidance published by the Institute after an NSF has been issued will have the effect of updating the framework. Specifically, in this case, the guidance will support NSFs on the following: cancer, coronary heart disease (including obesity), diabetes, and older adults (including stroke services) (DH 2000a; DH 2000b; DH 2001a; DH 2001b).

c) This guidance will support a number of related policy documents including:

- 'Delivering choosing health: making healthier choices easier' (DH 2005a)

- 'Health challenge England – next steps for choosing health' (DH 2006a)
- 'National stroke strategy' (DH 2007)
- 'Our health, our care, our say' (DH 2006b)
- 'Tackling health inequalities: what works' (DH 2005b)
- 'The NHS in England: the operating framework for 2006/7' (DH 2006c)
- 'Wanless report: securing good health for the whole population' (Wanless 2004).

d) This guidance will provide recommendations for good practice, based on the best available evidence of effectiveness, including cost effectiveness. It is aimed at professionals, commissioners and managers with public health as part of their remit working within the NHS, local authorities and the wider public, private, voluntary and community sectors. It may also be of interest to members of the public.

e) The guidance will complement and support NICE guidance on alcohol, CVD risk assessment, obesity, physical activity and smoking cessation. For further details, see section 6.

This guidance will be developed using the NICE public health programme process.

3 The need for guidance

a) A large number of preventable illnesses and deaths are associated with CVD (CVD includes coronary heart disease [CHD], heart failure, stroke and peripheral arterial disease). In 2005, there were 171,021 deaths from circulatory diseases in England, including 45,620 from CHD and 18,013 from stroke (Allender et al. 2007). In that year, over 40% of deaths in the UK were caused by CVD. More than 4 million UK patients are currently affected and it costs the UK approximately £30 billion annually. At least 80% of

premature illnesses caused by CVD are preventable (Yusuf et al. 2004).

b) Despite recent improvements, UK death rates from CVD are relatively high compared with other developed countries (only Ireland and Finland have higher rates). There is also considerable variation within the UK itself – geographically, ethnically and socially. For instance, premature CVD death rates are three times higher among lower socioeconomic groups than among their more affluent groups – and death rates from CVD are approximately 50% higher than average among South Asian groups (Allender et al. 2007).

c) CVD is influenced by a variety of 'upstream' factors (such as access to a safe environment for physical activity and a person's educational level) and 'downstream' behavioural issues (such as diet and smoking). The British Heart Foundation identifies nine key risk factors that can be modified: smoking, poor diet, insufficient physical activity, high blood pressure, obesity/overweight, diabetes, psychosocial stress, high alcohol consumption and high blood cholesterol. Other factors, such as maternal nutrition, stress and air pollution may also be linked to the disease (Allender et al. 2007). Changes in risk factors, such as a reduction in cholesterol or blood pressure, or quitting smoking, can rapidly reduce the risk of developing CVD.

d) Evaluating complex changes between populations is problematic for a number of reasons, for example: it's difficult to design studies which evaluate entire cities, regions or countries; control sites can become 'contaminated' (that is, if the intervention affects people living in the control area); unreasonable expectations about the speed of effect; and failure to address 'upstream' influences such as policy or manufacturing practices. Some population programmes have been accompanied by a substantial reduction in

the rate of CVD deaths. However, the degree to which these are attributable to the programme is debatable.

4 The guidance

Public health guidance will be developed according to NICE processes and methods. For details see section 5.

This document is the scope. It 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 Populations

4.1.1 Groups that will be covered

Local, regional or national populations.

4.1.2 Groups that will not be covered

The guidance will not focus primarily on individuals who are at high risk of developing – or who have already been diagnosed with – CVD. However, as populations include people at different stages of disease, it will have some relevance for them. (Individuals at high risk of developing CVD are covered by other NICE guidance, see section 6.)

4.2 Activities/interventions

4.2.1 Activities/interventions that will be covered

a) Multiple risk-factor approaches to preventing CVD among a given population. These could include:

- educational/behavioural approaches (including the use of mass media)
- fiscal changes
- environmental changes
- legislative changes.

b) Interventions that include a pharmacological element as part of a broader programme, if there is a primary prevention component or they result in a change in one or more CVD risk factors or illness and death rates.

c) Natural experiments, such as changes in the diet of Eastern Europeans around 1990, where relevant evidence is available.

4.2.2 Activities/interventions that will not be covered

a) Secondary prevention activities and those aimed only at people who are at high risk of developing CVD. (If an intervention covers both primary and secondary prevention, it will only be included if the primary component is sufficiently disaggregated and can be reported separately.)

b) Interventions which focus on screening for CVD risk factors (for example, cholesterol-level screening) and do not attempt to modify them.

4.3 Key questions and outcomes

The following overarching questions will be addressed. Also below are the outcomes that would be considered as evidence of effectiveness.

Question 1: Which multiple risk-factor interventions effectively and cost effectively reduce mortality and morbidity from CVD and/or reduce a number of CVD risk factors within a given population? (An intervention must include primary prevention and tackle at least two of the following CVD risk factors: smoking, poor diet, lack of physical activity, high blood pressure/cholesterol, obesity/overweight issues, diabetes, psychosocial stress and high alcohol consumption.)

Expected outcomes: Population changes in: rates or levels of CVD mortality or morbidity; the biochemical or physiological precursors of CVD; behaviour associated with the risk of developing CVD.

Question 2: What barriers and facilitators influence the effectiveness of multiple risk-factor programmes aimed at reducing CVD (or the risk factors associated with CVD) among a given population? (For a definition of these interventions see question 1.)

Expected outcomes: Qualitative information on the process, the barriers and facilitators related to effective implementation of a population-level prevention programme.

4.4 Status of this document

This is the draft scope, released for consultation on 23 April until 22 May, to be discussed at a stakeholder meeting on 1 May. Following consultation, the final version of the scope will be available at the NICE website in July 2008.

5 Further information

The public health guidance development process and methods are described in 'Methods for development of NICE public health guidance' (NICE 2006) available at www.nice.org.uk/phmethods and 'The public health guidance development process: An overview for stakeholders, including public health practitioners, policy makers and the public' (NICE 2006) available at www.nice.org.uk/phprocess

6 Related NICE guidance

Published

Promoting and creating built or natural environments that encourage and support physical activity. NICE public health guidance 8 (2008). Available from: www.nice.org.uk/PH008

Smoking cessation services in primary care, pharmacies, local authorities and workplaces, particularly for manual working groups, pregnant women and hard to reach communities. NICE public health guidance 10 (2008). Available from: www.nice.org.uk/PH010

Workplace health promotion: how to help employees to stop smoking. NICE public health guidance 5 (2007). Available from: www.nice.org.uk/PHI005

Brief interventions and referral for smoking cessation in primary care and other settings. NICE public health guidance 1 (2006). Available from: www.nice.org.uk/PHI001

Four commonly used methods to increase physical activity: brief interventions in primary care, exercise referral schemes, pedometers and community-based exercise programmes for walking and cycling. NICE public health guidance 2 (2006). Available from: www.nice.org.uk/PHI002

Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. NICE clinical guideline 43 (2006). Available from: www.nice.org.uk/CG043

Under development

Cardiovascular risk assessment: the modification of blood lipids for the primary and secondary prevention of cardiovascular disease. NICE clinical guideline (due May 2008).

Mass-media and point-of-sales measures to prevent the uptake of smoking by children and young people. NICE public health guidance (due July 2008).

Workplace health promotion: how to encourage employees to be physically active. NICE public health guidance (due May 2008).

Promoting physical activity, play and sport for pre-school and school-age children in family, pre-school, school and community settings. NICE public health guidance (due January 2009).

Prevention and early identification of alcohol-use disorders in adults and young people. NICE public health guidance (due March 2010).

Appendix A Referral from the Department of Health

The Department of Health asked the Institute to:

'Prepare public health programme guidance on the prevention of cardiovascular disease at the population level.'

Appendix B Potential considerations

It is anticipated that the Programme Development Group (PDG) will consider the following issues in relation to studies that will be examined while developing the guidance:

- The target audience, actions taken and by whom, context, frequency and duration.
- Whether it is based on an underlying theory or conceptual model.
- Whether it is effective and cost effective.
- Critical elements. For example, whether effectiveness and cost effectiveness varies according to:
  - the diversity of the population (for example, in terms of the user's age, gender or ethnicity)
  - the status of the person delivering it and the way it is delivered
  - its frequency, length and duration, where it takes place and whether it is transferable to other settings
  - its intensity.
- Any trade offs between equity and efficiency.
- Any factors that prevent – or support – effective implementation.
- Any adverse or unintended effects.
- Current practice.
- Availability and accessibility for different population groups.

Appendix C References

Allender S, Peto V, Scarborough P et al. (2007) Coronary heart disease statistics 2007 edition. London: British Heart Foundation.

Department of Health (2000a) The NHS cancer plan: a plan for investment, a plan for reform. London: Department of Health.

Department of Health (2000b) National service framework for coronary heart disease. London: Department of Health.

Department of Health (2001a) Modern standards and services models – diabetes: national service framework standards. London: Department of Health.

Department of Health (2001b) National service framework for older people. London: Department of Health.

Department of Health (2005a) Delivering choosing health: making healthier choices easier. London: Department of Health.

Department of Health (2005b) Tackling health inequalities: what works. London: Department of Health.

Department of Health (2006a) Health challenge England – next steps for choosing health. London: Department of Health.

Department of Health (2006b) Our health, our care, our say. London: Department of Health.

Department of Health (2006c) The NHS in England: the operating framework for 2006/7. London: Department of Health.

Department of Health (2007) National stroke strategy. London: Department of Health.

Wanless D (2004) Securing good health for the whole population. London: HM Treasury.

Yusuf S, Hawken S, Ôunpuu T et al. (2004) Effect of potentially modifiable risk factors associated with myocardial infarction in 52 countries (the INTERHEART study): case-control study. The Lancet. 364: 937–952.