

PUBLIC HEALTH GUIDANCE

SCOPE

1 Guidance title

Behaviour change

1.1 Short title

Behaviour change

2 Background

- a) This is a partial update of The National Institute for Health and Clinical Excellence (NICE) public health guidance 6 '[Behaviour change at population, community and individual levels](#)'. In the original remit, the Department of Health (DH) asked NICE to develop guidance on the most appropriate 'generic and specific interventions to support attitude and behaviour change at population and community levels'.
- b) Following a formal consultation in 2010, it was decided that the original guidance should be considered for update after the House of Lords Science and Technology Select Committee inquiry into behaviour change had reported.
- c) The House of Lords Science and Technology Select Committee reviewed a wide range of factors that impact on behaviour change. In its final report, it recommended that NICE should update its guidance on the topic, in particular, it wanted, 'more explicit advice on how behaviour change techniques could be applied to reduce obesity, alcohol abuse and smoking' (House of Lords 2011). The Committee also reviewed the evidence for behaviour change

approaches based on ‘choice architecture’¹ (commonly referred to as ‘nudge’) (Thaler and Sunstein 2008). The Committee questioned whether there was sufficient evidence to support the use of choice architecture interventions as a means to change behaviour (House of Lords 2011).

- d) This guidance update will focus on evidence-based, individual-level behaviour-change techniques and interventions based on the choice architecture approach. This will include individual interventions for different population groups. There will be a particular emphasis on the techniques and skills practitioners need to help people sustain their new behaviour.
- e) There are difficulties distinguishing between individual and population-level interventions. For this guidance, an individual-level intervention is defined as one where someone is selected on the basis of an existing health status or behaviour. For example, vouchers for healthier food options offered to anyone with a specific biomarker (for example, a specific body mass index) or health status (for example, obesity), would be an individual-level intervention. But offering vouchers to everyone in the country or a specific city would not be. Note, the intervention and its outcomes need not necessarily be at the same level. For example, counselling is carried out on an individual basis, but if enough people have counselling it could have an effect on the population as a whole.
- f) This guidance will support a range of related policy documents including:
- ‘Equity and excellence: liberating the NHS’ (DH 2010a)
 - ‘Healthy lives, healthy people: our strategy for public health in England’ (DH 2010b)

¹ The environment in which someone makes a decision.

- 'Healthy lives, healthy people: a call to action on obesity in England' (DH 2011a)
 - 'Healthy lives, healthy people: a tobacco control plan for England' (DH 2011b)
 - 'Improving outcomes: a strategy for cancer' (DH 2011c)
- g) This guidance is aimed at commissioners, managers and practitioners with public health as part of their remit working within the NHS, local authorities and the wider public, private, voluntary and community sectors. It is particularly aimed at those who commission, design, deliver and implement interventions to help individuals change their behaviour – or who encourage or support behaviour change as part of their role. It may also be of interest to people who want to change their behaviour (for example, to stop smoking) and other members of the public.
- h) It is recognised that behaviour change is most likely to occur and be sustained through a combination of population, community and individual-level interventions. A range of topic-specific public health guidance published by NICE deals with various aspects of behaviour change. In addition, a suite of guidance on behaviour change, including behaviour change at population and community level, will be the subject of future NICE guidance. The guidance will complement NICE's existing guidance on behaviour change and will inform a broad range of NICE public health guidance. For further details, see section 6.

This guidance will be developed using the NICE [public health programme](#) process.

3 The need for guidance

- a) Since publication of NICE's [behaviour change](#) guidance there has been considerable research and review activity on the general subject – and on the effectiveness of specific approaches and

techniques for tackling different issues. This is particularly true of research on individual-level interventions to change health-related behaviour. Evidence relating to the theory, concept and effectiveness of interventions based on the choice architecture are currently under review.

- b) A range of interventions delivered at individual level (usually involving multiple behaviour-change techniques) are currently used by practitioners. However, practical advice on which techniques should be used to tackle specific behaviours (for example, in relation to diet, smoking and alcohol) and with specific populations is needed. The evidence base in both these areas has grown since NICE's guidance was published in 2007.
- c) Choice architecture interventions can be delivered at individual, community or population level and there is a high level of political interest in whether or not these work. There is evidence that such 'nudges' can work to the detriment of our health (for example, through marketing junk food and alcohol). However, 'few nudging interventions have been evaluated for their effectiveness in changing behaviour in general populations' (Marteau et al. 2011).
- d) Considerable research has been undertaken to classify behaviour-change techniques. This includes techniques specific to improving someone's diet and encouraging them to be more physically active (Abraham and Michie 2008; Conn et al. 2002; Inoue et al. 2003; Michie et al. 2011a). It also includes techniques for preventing weight gain (Hardeman et al. 2000), stopping smoking (Michie et al. 2011b) and HIV prevention (Albarracin et al. 2005). Work is currently underway to establish which techniques are universally applicable and which are more specific. The reliability and validity of the classification system is also being assessed (Michie et al. 2011c).

- e) Work has been done to establish theoretical frameworks for behaviour change (Abraham and Michie 2008; Michie et al. 2011a; West 2009). The importance of having a theoretical basis for the design and evaluation of interventions is well established (Medical Research Council 2008). For example, it can help ensure better outcomes (Albarracin et al. 2005) as well as helping us to understand why an intervention is effective or not. Evidence continues to emerge concerning the suitability of theories that inform behaviour change interventions (see for example, Tuah et al. 2011; Williams and French 2011).
- f) Human behaviour can be explained by dual process accounts, whereby actions are governed by a combination of reflective (deliberative) and automatic processes (Strack and Deutsch 2004). Sometimes these processes work in harmony, but at other times there is a conflict between the two. For example, someone wants to lose weight and intends to eat only 'healthier' foods (reflective). However, when they are standing in a queue to buy their food, they are tempted into buying chocolate from the checkout counter (automatic). Traditional health promotion and education has mainly focused on people's reflective processes. Information has been provided on the risks of existing behaviours (for example, smoking) and the health benefits of changing (for example, quitting smoking to reduce the likelihood of coronary heart disease). These techniques have been described as 'at best ... modestly effective in changing behaviour' (Marteau et al. 2011). Choice architecture interventions are believed to use automatic processes to influence behaviour (Marteau et al. 2011).
- g) There is a reasonable evidence base relating to motivation to change. Motivational interviewing² has been shown to be effective and cost effective in some circumstances (Lai et al. 2010; Ruger et

² A process by which someone's motivation to change a behaviour is explored through interview and they are helped to decide how to take action to change.

al. 2008). However, relatively little is known about how behaviour change can be sustained – not just how people can be helped to deal with times when they break a resolution, but when and why behaviour change becomes habitual.

4 The guidance

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

This document defines 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 aged 16 years and older.

4.1.2 Groups that will not be covered

- Children and young people aged under 16.
- Families (while some interventions may be delivered in family settings, the guidance will only cover adults' behaviour).

4.2 *Activities*

4.2.1 Activities/measures that will be covered

- a) Health promotion and disease prevention interventions aimed at changing an individual's health-related behaviour, specifically in relation to smoking, alcohol, diet, physical activity and sex. These interventions must include enough detail for the specific behaviour-change techniques used to be identified.

- b) Behaviour-change techniques grouped according to the function of the intervention (see for example, Michie et al. 2011d) unless evidence suggests a better alternative.
- c) Interventions delivered by humans or automatic systems (for example, websites or application software [apps]) in a range of settings (such as a social care, applied psychology, prison and probationary setting or service).
- d) Measures of skills required to deliver behaviour-change techniques competently.
- e) Activities and measures based on the choice architecture.

Reasonable steps will be taken to identify ineffective measures and approaches.

4.2.2 Activities/measures that will not be covered

- a) National policy, fiscal and legislative measures.
- b) Clinical or pharmacological methods of achieving behaviour change with no public health or health promotion element.
- c) Psychiatric interventions delivered as part of the therapeutic process for people with a mental health problem.

4.3 Key questions and outcomes

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

Question 1a: Which interventions are effective and cost effective at changing someone's behaviour and then helping them to sustain that change?

Question 1b: Which specific behaviour-change techniques (and combinations of behaviour-change techniques³) are effective and cost effective at helping individuals change and then sustain the new behaviour in the long term (for at least 6 months following the intervention)?

Expected outcomes: Changes in behaviour that have a causal link to an intervention or behaviour-change technique or specific combination of techniques and the specified length of time that a change in behaviour is evident.

Question 2: Which behaviour-change techniques are only effective for specific behaviours, such as helping people to quit alcohol or smoking? Which techniques can be used to tackle a range of behaviours?

Expected outcomes: Techniques associated with changes in specific behaviours and those associated with changes to a number of different types of behaviour.

Question 3: What characteristics and competencies are required to deliver behaviour-change interventions and techniques effectively?

Expected outcomes: Details of the characteristics of those delivering behaviour-change interventions (for example, professional background, social skills). Details of competencies associated with specific behaviour-change techniques focusing on a target behaviour; and competencies associated with general aspects of the interaction with the client.

Question 4: How do the effects of individual interventions/behaviour-change techniques vary across different population groups?

Expected outcomes: Participants' demographic details, including measures of socioeconomic status and health inequalities. Reporting of any unintended consequences of individual-level intervention.

³ A behaviour-change technique is 'a replicable component of an intervention designed to alter or redirect causal processes that regulate behaviour' (Michie et al. 2011b).

Question 5: Which theories explain when, why and how behaviour change is maintained?

Expected outcomes: Evidence from learning and social-cognitive theories and theories of change.

4.4 Status of this document

This is the final scope, incorporating comments from a 4-week consultation which included an expert stakeholder meeting on 12 January 2012.

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 \(second edition, 2009\)](#)' and '[Methods for development of NICE public health guidance \(second edition, 2009\)](#)'.

6 Related NICE guidance

Published

[Preventing type 2 diabetes – population and community-level interventions.](#)

NICE public health guidance 35 (2011)

[Weight management before, during and after pregnancy.](#) NICE public health guidance 27 (2010)

[Quitting smoking in pregnancy and following childbirth.](#) NICE public health guidance 26 (2010)

[Alcohol-use disorders – preventing harmful drinking.](#) NICE public health guidance 24 (2010)

[Smoking cessation services.](#) NICE public health guidance 10 (2008)

[Behaviour change](#). NICE public health guidance 6 (2007)

[Workplace interventions to promote smoking cessation](#). NICE public health guidance 5 (2007)

[Interventions to reduce substance misuse among vulnerable young people](#). NICE public health guidance 4 (2007)

[MI: secondary prevention](#). NICE clinical guideline 48 (2007)

[Four commonly used methods to increase physical activity](#). NICE public health guidance 2 (2006)

[Brief interventions and referral for smoking cessation](#). NICE public health guidance 1 (2006)

[Obesity](#). NICE clinical guideline 43 (2006)

Under development

Preventing type 2 diabetes: risk identification and interventions for high-risk individuals. NICE public health guidance (publication expected June 2012).

Smokeless tobacco: South Asians. NICE public health guidance (publication expected September 2012).

Walking and cycling. NICE public health guidance (publication expected October 2012).

Physical activity advice in primary care. NICE public health guidance (publication expected May 2013).

Tobacco: harm-reduction. NICE public health guidance (publication expected May 2013).

Overweight and obese adults: lifestyle weight management services. NICE public health guidance (publication expected October 2013).

Overweight and obese children and young people: lifestyle weight management services. NICE public health guidance (publication expected October 2013).

Smoking cessation: acute and maternity services. NICE public health guidance (publication expected November 2013).

Appendix A Referral from the Department of Health

The original referral from the Department of Health asked NICE to make recommendations on:

‘the most appropriate means of generic and specific interventions to support attitude and behaviour change at population and community levels.’

The House of Lords Science and Technology Select Committee inquiry into behaviour change recommended that:

‘the National Institute for Health and Clinical Excellence updates its 2007 behaviour change guidance and considers whether accessible, multi-disciplinary guidance could be provided in relation to health-related behaviour change policies, particularly to offer more explicit advice on how behaviour change techniques could be applied to reduce obesity, alcohol abuse and smoking (paragraph 4.36)’ (House of Lords 2011)’.

The Department of Health’s response to the above recommendation was:

‘NICE plans to review its guidance on behaviour change later this year so that the Committee’s findings can be taken into account’ (Cabinet Office 2011).

Appendix B Potential considerations

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

- Target audience, actions taken and by whom, context, frequency and duration.
- Whether the intervention/behaviour-change techniques are based on an underlying theory or conceptual model.
- The underlying theory or conceptual model for sustained behaviour change.
- The impact of the approach (for example, theory, plan) on implementing and delivering interventions/behaviour-change techniques.
- Whether the interventions/behaviour-change techniques are delivered as intended.
- Whether the interventions/behaviour-change techniques are effective and cost effective.
- Whether effectiveness and cost effectiveness varies according to:
 - type of behaviour targeted, diversity of the population (for example, in terms of the user's age, socioeconomic status, disability, sexual orientation, gender or ethnicity)
 - status and characteristics of the person delivering the intervention and the way it is delivered
 - intervention frequency, length and duration, intensity, where it takes place and whether it is transferable to other settings.
- The adult population consists of groups with diverse needs and abilities.
- Whether interventions lead to a widening in health inequalities and any trade-offs between equity and efficiency.

- Any factors that prevent – or support – effective implementation.
- Any adverse or unintended effects.
- Current practice.
- Skills base required to deliver behaviour-change techniques.
- Availability and accessibility for different groups.

Appendix C References

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Department of Health (2011b) Healthy lives, healthy people: a tobacco control plan for England. London: Department of Health

Department of Health (2011c) Improving outcomes: a strategy for cancer. London: Department of Health

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Michie S, Stralen MMV, West R (2011d) The behavior change wheel: a new method for characterizing behavior change interventions. *Implementation Science* 6: 42

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