NICE National Institute for Health and Care Excellence

NICE guideline

Smoking prevention in schools

Public health guideline

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Your responsibility

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Contents

This guideline is the basis of QS82.

Overview

This guideline covers smoking prevention interventions that are delivered in schools or other educational institutions. It aims to prevent children and young people aged under 19 from taking up smoking.

Who is it for?

- Healthcare professionals
- Commissioners and providers
- Education professionals
- People who work in the wider public, private, voluntary and community sectors
- Children, young people, and their families and carers

Introduction

The Department of Health (DH) asked the National Institute for Health and Clinical Excellence (NICE) to produce public health guidance on school-based interventions to prevent the uptake of smoking among children and young people.

For the purposes of this guidance, 'schools' is used to refer to the following educational establishments:

- maintained and independent primary, secondary and special schools
- city technology colleges and academies
- pupil referral units, secure training and local authority secure units
- further education colleges
- 'extended schools' where childcare or informal education is provided outside school hours.

The guidance is for commissioners, managers and practitioners who have a direct or indirect role in, and responsibility for, preventing the uptake of smoking by children and young people. This includes those working in the NHS, local authorities, education and the wider public, private, voluntary and community sectors. It may also be of interest to children and young people, their parents or carers and other members of the public.

The guidance complements, but does not replace, NICE guidance on: preventing the uptake of smoking by children and young people through mass-media and point-of-sale interventions; smoking cessation; and school-based interventions on alcohol (for further details, see section 7).

The Public Health Interventions Advisory Committee (PHIAC) developed these recommendations on the basis of two reviews of the evidence, an economic analysis, expert advice, stakeholder comments and fieldwork with practitioners and young people.

Members of PHIAC are listed in appendix A. The methods used to develop the guidance are summarised in appendix B. Supporting documents used to prepare this document are listed in appendix E.

Full details of the evidence collated, including fieldwork data and activities and stakeholder

comments, are available on the NICE website, along with a list of the stakeholders involved and NICE's supporting process and methods manuals.

1 Recommendations

This is NICE's formal guidance on school-based interventions to prevent smoking among children and young people. When writing the recommendations, the Public Health Interventions Advisory Committee (PHIAC) (see appendix A) considered the evidence of effectiveness (including cost effectiveness) fieldwork data and comments from stakeholders. Full details are available online.

For the purposes of this guidance, 'schools' is used to refer to the following educational establishments:

- maintained and independent primary, secondary and special schools
- city technology colleges and academies
- pupil referral units, secure training and local authority secure units
- further education colleges
- 'extended schools' where childcare or informal education is provided outside school hours.

The evidence statements underpinning the recommendations are listed in appendix C.

The evidence reviews, supporting evidence statements and economic analysis are available online.

PHIAC considers that the recommended measures are cost effective. For the research recommendations and gaps in research, see section 5 and appendix D respectively.

Recommendation 1: organisation-wide or 'whole-school' approaches

Who is the target population?

- Children and young people under the age of 19 who attend school or another educational establishment.
- Those working in schools and other educational establishments aimed at under-19s.
- Parents and carers.

Who should take action?

Head teachers, school governors, teachers, support staff and others who work with primary and secondary schools and further education colleges. This includes:

- Healthy Schools and Healthy Further Education leads
- personal, social, health and economic (PSHE) education coordinators
- school nurses
- counsellors.

What action should they take?

- Develop a whole-school or organisation-wide smokefree policy in consultation with young people and staff. This should include smoking prevention activities (led by adults or young people) and staff training and development. The policy should take account of children and young people's cultural, special educational or physical needs. (For example, large-print versions of information may be needed.)
- Ensure the policy forms part of the wider healthy school or healthy further education strategy on wellbeing, sex and relationships education, drug education and behaviour.
- Apply the policy to everyone using the premises (grounds as well as buildings), for any purpose, at any time. Do not allow any areas in the grounds to be designated for smoking (with the exception of caretakers' homes, as specified by law).
- Widely publicise the policy and ensure it is easily accessible so that everyone using the premises is aware of its content. (This includes making a printed version available.)
- Ensure the policy supports smoking cessation in addition to prevention, by making information on local NHS Stop Smoking Services easily available to staff and students. This should include details on the type of help available, when and where, and how to access the services.

Refer, in particular, to 'Workplace interventions to promote smoking cessation' (NICE public health guidance 5). See also: 'School-based interventions on alcohol' (NICE public health guidance 7); 'Smoking cessation services' (NICE public health guidance 10); 'Social and emotional wellbeing in primary education' (NICE public health guidance 12); and 'Social and emotional wellbeing in secondary education' (NICE public health guidance 20).

Recommendation 2: adult-led interventions

Who is the target population?

Children and young people under the age of 19 who attend school or another educational establishment.

Who should take action?

Head teachers, school governors, teachers, support staff and others who work with primary and secondary schools and further education colleges. This includes:

- Healthy Schools and Healthy Further Education leads
- PSHE education coordinators
- school nurses
- counsellors.

What action should they take?

- Integrate information about the health effects of tobacco use, as well as the legal, economic and social aspects of smoking, into the curriculum. For example, classroom discussions about tobacco could be relevant when teaching a range of subjects including biology, chemistry, citizenship, geography, mathematics and media studies.

- Deliver interventions that aim to prevent the uptake of smoking as part of PSHE (drugs education) and activities related to Healthy Schools or Healthy Further Education status. Link them to the whole-school or organisation-wide smokefree policy and involve children and young people in their design. Interventions should:
  - be entertaining, factual and interactive
  - be tailored to age and ability
  - be ethnically, culturally and gender-sensitive and non-judgemental
  - aim to develop decision-making skills through active learning techniques
  - include strategies for enhancing self-esteem and resisting the pressure to smoke from the media, family members, peers and the tobacco industry
  - include accurate information about smoking, including its prevalence and its consequences: tobacco use by adults and peers should be discussed and challenged
  - be delivered by teachers and higher-level teaching assistants who are both credible and competent in the subject, or by external professionals trained to work with children and young people on tobacco issues.
- Support tobacco education in the classroom with additional 'booster' activities until school leaving age. These might include school health fairs and guest speakers.
- Encourage parents and carers to become involved, for example, by letting them know about class work or by asking them to help with homework assignments.
- Work with local partners involved in smoking prevention and cessation activities to deliver interventions. This could include local health improvement services, regional tobacco policy leads, local tobacco control alliances and NHS Stop Smoking Services.

See also: 'Behaviour change' (NICE public health guidance 6); 'School-based interventions on alcohol' (NICE public health guidance 7); and 'Preventing the uptake of smoking by children and young people' (NICE public health guidance 14).

Recommendation 3: peer-led interventions

Who is the target population?

Children and young people aged 11 to 16 who attend secondary school.

Who should take action?

- Head teachers, school governors, teachers and support staff in secondary schools and others who work with them. This includes:
  - Healthy Schools leads
  - PSHE education coordinators
  - school nurses
  - counsellors.
- Young people.

What action should they take?

Consider offering evidence-based, peer-led interventions aimed at preventing the uptake of smoking such as the ASSIST (A Stop Smoking in School Trial[1]) programme. They should:

- link to relevant PSHE activities
- be delivered both in class and informally, outside the classroom
- be led by young people nominated by the students themselves (the peer leaders could be the same age or older)
- ensure the peer leaders are trained outside school by adults who have the appropriate expertise
- ensure peer leaders receive support from these experts during the course of the programme
- ensure young people can consider and, if necessary, challenge peer and family norms on smoking, discuss the risks associated with it and the benefits of not smoking.

See also 'School-based interventions on alcohol' (NICE public health guidance 7).

Recommendation 4: training and development

Who is the target population?

Teachers, support staff and others with a remit for improving the health and wellbeing of children and young people under the age of 19 who attend school or another educational establishment.

This includes:

- Healthy Schools and Healthy Further Education leads
- PSHE education coordinators
- school nurses
- counsellors.

Who should take action?

Head teachers, school governors, public health commissioners, teacher training bodies and providers of continuing professional development.

What action should they take?

- Provide training for all staff who will be involved in smoking prevention work.
- Work in partnership to design, deliver, monitor and evaluate smoking prevention training and interventions. Partners could include: national and local education agencies, training agencies, local authorities, the school nursing service, voluntary sector organisations, local health improvement services and universities.

See also: 'Brief interventions and referral for smoking cessation' (NICE public health guidance 1); 'Behaviour change' (NICE public health guidance 6); and 'Smoking cessation services' (NICE public health guidance 10).

Recommendation 5: coordinated approach

Who is the target population?

Children and young people under the age of 19 who attend school or another educational establishment.

Who should take action?

- Government departments, school inspectorates, school governing bodies and school commissioners.
- Children's trusts.

- Local authorities, in particular, children and young people's services, trading standards and environmental health officers.
- Connexions or Integrated Youth Support Services.
- Primary care trusts (PCTs) and regional and national health commissioners.
- Local tobacco control alliances.

What action should they take?

- Ensure smoking prevention interventions in schools and other educational establishments are part of a local tobacco control strategy.
- Ensure schools and other educational establishments deliver evidence-based smoking prevention interventions. These should be linked to their smokefree policy and consistent with regional and national tobacco control strategies.
- Ensure the interventions are integrated into the curriculum, PSHE education and work associated with Healthy Further Education and Healthy Schools status. They should also follow the Healthy Schools enhancement model (stage 5).

See also 'Behaviour change' (NICE public health guidance 6).

[1] Campbell R, Starkey F, Holliday J et al. (2008) An informal school-based peer-led intervention for smoking prevention in adolescence (ASSIST): a cluster randomised trial. Lancet (371) 9624: 1595–602.

Audrey S, Halliday J, Campbell R (2006) It's good to talk: adolescent perspectives of an informal, peer-led intervention to reduce smoking. Social Science and Medicine (63): 320–34.

Audrey S, Halliday J, Campbell R (2008) Commitment and compatibility: teacher's perspectives on the implementation of an effective school-based, peer-led smoking intervention. Health Education Journal (67): 74–90.

2 Public health need and practice

Smoking is the main cause of preventable morbidity and premature death in England. In 2007, it is estimated that 82,900 adults aged 35 and over died as a result of smoking. This translates into nearly two in ten deaths in England of people aged 35 and over (The Information Centre 2008).

In England, the long-term decline in adult smoking is reflected in the behaviour of young people. Among those aged 16–19, smoking fell from 40% in 1974 to 21% in 2007 (Robinson and Lader 2008). Regular smoking among young people aged 11–15 (defined in this group as smoking one or more cigarettes a week) shows an overall decline from 11% in 1982 to 10% in 2000, with a further decline to 6% in 2007 (Fuller 2008).

The earlier children become regular smokers, the greater their risk of developing life-threatening conditions, such as lung cancer or heart disease, if they continue smoking into adulthood. Those who start smoking before the age of 16 are twice as likely to continue to smoke as those who begin later in life – and are more likely to be heavier smokers (Muller 2007).

However, the process of becoming a regular smoker is not always constant – children and young people may stop and start the habit on a number of occasions before they come to identify themselves as someone who smokes (Goddard 1990).

Factors linked to smoking

Children and young people start to smoke and then continue for a number of reasons. These may be connected to their personal or social circumstances or to wider society.

Personal factors include age, gender, socioeconomic status, educational attainment and mental health.

Regular and experimental smoking increases with age. According to the latest national data, only 1% of children aged 11 regularly smoke. This increases to 4% at age 13 and to 15% by the time they are 15. At this age more than half (55%) have tried smoking (Fuller 2008).

Smoking rates continue to rise among young people until they are in their mid-20s; smoking prevalence is highest among this age group. General Household Survey data indicate that about one in five young people aged 16–19 smoke and that this rises to about three in ten of those aged 20–24 (Goddard 2008).

At 13, girls are more likely than boys to smoke on a regular basis, but by the early 20s, young men overtake young women (Fuller 2008; Goddard 2008).

Children and young people are more likely to smoke if they have:

- used alcohol or drugs (Goddard 1992)
- poor educational attainment or are 'disengaged' from school (Morgan et al. 2006)
- mental or emotional health problems (Office for National Statistics 2005).

Social circumstances, such as being surrounded by peers and family members who smoke, can also affect whether or not young people will take up smoking. For example, smoking among young people is strongly associated with living with one or more people who smoke. In 2006, 25% of young people aged 11–15 who reported living with three or more people who smoked were themselves smoking on a regular basis. This compares with 4% of young people who did not live with someone who smoked.

Parents who smoked were perceived by their children to have a more lenient attitude towards their children smoking. The children of these parents were less likely to think that they would try to make them stop, compared with those who were not living with parents who smoke (Fuller 2007).

Many young people see smoking as the norm because they mistakenly believe it is more prevalent than it really is. When asked how many of their friends smoke, they consistently overestimate the figure. For example, in a 2006 sample in which an estimated 29% of young people aged 15 smoked, their non-smoking peers estimated that the prevalence of smoking was 63%. Those who regularly smoked put the figure at 93% (Fuller 2007).

A range of factors in wider society also influences whether or not children and young people take up smoking. These include:

- tobacco price and availability
- restrictions on smoking in public places
- tobacco industry advertising, including point-of-sale, and other promotional tactics such as product placement (for example, in films)

  (DiFranza et al. 2006; Emery et al. 2001; Hastings 2003; Pierce et al. 2005).

National context: policy

The 'Smoking kills' white paper (DH 1998) set targets to reduce the number of children aged 11–15 who were regularly smoking. The targets were: to reduce the total smoking from 13% (in 1996) to 11% by 2005 and to 9% by 2010 (DH 1998).

'Smoking kills' recognised the fact that adult smoking and other societal factors affect whether or not children and young people take up smoking. It outlined plans to increase the real price of tobacco, combat smuggling and ban tobacco advertising, promotion and sponsorship. In addition, it set out the need to publicise the dangers of tobacco use more widely and to provide help to quit smoking through the NHS. It also urged local authorities to increase compliance with exisiting laws on under-age tobacco sales.

Legislation to make public places smokefree came into force in July 2007 – and was a significant step towards protecting children and young people from the harm caused by tobacco. In October 2007, the legal age for tobacco sales was increased from 16 to 18 years.

The Health Act 2009 will remove tobacco displays in shops and ban tobacco sales from vending machines (displays in all shops will be removed by October 2013 – the date for banning vending sales is yet to be announced). In addition, a new government tobacco control strategy was announced by the Secretary of State for Health on 1 February 2010. This sets out three objectives: 'to stop the inflow of young people recruited as smokers; to motivate and assist every smoker to quit; and to protect families and communities from tobacco-related harm'. The strategy aims to halve the proportion of people who smoke – from 21% to 10% – by 2020 (DH 2010).

National context: schools and further education colleges

All secondary schools include information to deter tobacco use as part of the science curriculum. Some include it as part of personal, social, health and economic (PSHE) education. Schools that have (or are working towards) National Healthy School Status (NHSS) or Healthy Schools enhanced status may be involved in additional anti-tobacco activities.

In particular, schools that sign up to the enhancement model will use a range of data and work with a range of partner organisations (including those from the voluntary sector) to help children and young people who want to quit smoking.

Further education colleges may become involved in the Healthy Further Education Programme. This encourages a 'whole college' approach to health and wellbeing and involves tackling a range of

health issues including smoking.

In 2009, the Secretary of State for the Department for Children, Schools and Families announced that PSHE education should become a statutory part of the national curriculum at primary and secondary level in September 2011. This was subject to parliament passing the Children, Schools and Families Bill (2009) which was put before Parliament in November 2009.

3 Considerations

The Public Health Interventions Advisory Committee (PHIAC) took account of a number of factors and issues when developing the recommendations.

3.1 PHIAC noted that no single intervention or programme can prevent children and young people from taking up smoking. Rather, it requires a comprehensive approach embracing individual, social, community and societal issues. PHIAC also noted that different elements of a comprehensive approach may act synergistically. For example, activities targeting young people in schools may also have an effect on parents' smoking habits. Likewise, if parents are encouraged and supported to quit smoking, this will affect their children's attitudes and behaviour in relation to smoking.

3.2 Many of the studies reviewed were not carried out in the UK. This is important to note, as the UK context differs in many respects from the US, Australia and other parts of Europe (for example, in terms of health and education systems).

3.3 The last decade (and the last 3 years, in particular) has seen major changes in the UK in relation to tobacco control. This includes the introduction of smokefree public places, a ban on tobacco advertising, and mass-media messages and services focused on helping people to quit smoking. In turn, this has led to a more favourable climate for interventions aiming to discourage children and young people from taking up smoking.

3.4 PHIAC acknowledged that it is difficult to interpret research literature in the current UK context because of the many tobacco control policy measures that have been introduced in the past decade. Changes in national policies and programmes can make it difficult to detect and interpret differences between control and intervention groups, especially when trying to compare them to earlier studies.

3.5 PHIAC noted that smoking is dangerous at any age. However, it also noted that the earlier someone starts, the more likely they are to smoke for longer – and to die earlier from a related condition or disease. As the risk of disease relates to the overall length of time someone smokes, PHIAC considered that delaying the onset of smoking is worthwhile (in addition to preventing uptake altogether).

Furthermore, it noted that young people who take up smoking later in life are also more likely to stop smoking (Breslau and Peterson 1996; Khuder et al. 1999; Park et al. 2004).

3.6 On the basis of the economic modelling, PHIAC concluded that school-based smoking prevention programmes – whether they prevent or delay the uptake of smoking – are likely to be cost effective.

3.7 The evidence was mixed on when it is best to start delivering school-based smoking prevention interventions. However, it was clear that smoking prevalence among schoolchildren increases with age. In light of this, PHIAC considered prevention efforts would be most effective if they began in primary school and continued throughout the school 'career'.

3.8 There is good UK evidence that one particular peer-led approach can prevent children and young people from taking up smoking. This was drawn from a randomised controlled evaluation of the ASSIST programme and has been used as the basis of recommendation 3. PHIAC noted the need for further UK-based research on peer-led interventions for schools and other educational establishments.

3.9 PHIAC recognised that schools and further education colleges vary considerably in terms of their catchment area, geographic location and type. The implementation of these recommendations will need to reflect this diversity.

3.10 PHIAC noted that children and young people may experiment with smoking, taking up and dropping the habit intermittently, before becoming regular tobacco users. In practice, this means that the boundary between smoking prevention and cessation work may be unclear. PHIAC believes that preventing children and young people from smoking as adults may involve both prevention and cessation activities (even though smoking cessation is outside the scope of this guidance). On this basis, it has recommended that smokefree policies for schools and other educational settings should include efforts to promote local NHS stop smoking services (to both students and staff).

3.11 Policies on how schools and other educational establishments operate are under review and often change. Where relevant, the recommendations in this guidance link to current national policy and the national curriculum. PHIAC

recognised that this context may change, but is confident that the guidance will continue to be relevant to all schools.

4 Implementation

NICE guidance can help:

- Schools and other educational establishments to reach and maintain National Healthy School status and to meet their statutory duty to promote the health and wellbeing of pupils.
- Schools choose evidence-based activities and interventions that will help them with their school improvement plans, the Ofsted self-evaluation form and pupil-level wellbeing indicators. Note: referring to NICE guidance is recommended by the Healthy Schools enhancement model (stage 5).
- Schools to demonstrate to parents and Ofsted that they are fulfilling their statutory duty on health and wellbeing (see The Education and Inspections Act [Department for Education and Skills 2006]).
- Further education colleges meet the requirements of the Healthy Further Education programme.
- Local authorities fulfill their remit to promote the economic, social and environmental wellbeing of communities, including their responsibilities under the Children and Young Persons (Sale of Tobacco) Order (2007).
- Local authorities enforce The Smoke-free (Premises and Enforcement) Regulations 2006.
- Local authorities, the NHS and other organisations with a responsibility for children and young people's services to meet a range of government indicators and targets. These include those outlined within:
  - 'Every child matters'
  - DH's 'Operating framework for 2008/09' and 'Operational plans 2008/09–2010/11'
  - 'National service framework for children, young people and maternity services' (DH 2004)
  - Healthy Child Programme
  - 'The new performance framework for local authorities and local authority partnerships' (Department of Communities and Local Government 2007).

NICE has developed tools to help organisations put this guidance into practice.

5 Recommendations for research

PHIAC recommends that the following research questions should be addressed to improve the evidence relating to the effectiveness of school-based smoking prevention interventions. It notes that 'effectiveness' in this context relates not only to the size of the effect, but also to cost effectiveness and duration of effect. It also takes into account any harmful/negative side effects.

- What impact do the following factors have on the effectiveness of school-based interventions to prevent the uptake of smoking in the UK:
  - age at intervention
  - socioeconomic group
  - gender
  - ethnicity
  - learning or physical disabilities
  - being in an especially high-risk group?
- Which interventions are most effective at preventing the uptake of smoking among young people in sixth forms and further education colleges?
- Are school-based 'denormalisation' approaches to smoking (similar to the US 'Truth' campaign) effective in the UK?
- Is it more effective to focus on smoking prevention alone, or to deliver smoking prevention interventions as part of a broader substance and alcohol misuse prevention programme?
- Are targeted, intensive smoking prevention interventions aimed at high-risk groups of school-aged children more effective than universal provision (to all school-aged children)?
- Does peer-support and peer-education in UK-based educational establishments help discourage children and young people from taking up smoking?

6 Updating the recommendations

This guidance will be reviewed at 3 and 5 years after publication to determine whether all or part of it should be updated. Information on the progress of any update will be posted on our website.

7 Related NICE guidance

Published

Alcohol-use disorders: preventing harmful drinking. NICE public health guidance 24 (2010).

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

Social and emotional wellbeing in secondary education. NICE public health guidance 20 (2009).

Preventing the uptake of smoking by children and young people. NICE public health guidance 14 (2008).

Social and emotional wellbeing in primary education. NICE public health guidance 12 (2008).

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

School-based interventions on alcohol. NICE public health guidance 7 (2007).

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

Varenicline for smoking cessation. NICE technology appraisal 123 (2007).

Brief interventions and referral for smoking cessation in primary care and other settings. NICE public health guidance 1 (2006).

Under development

Personal, social and health education focusing on sex and relationships and alcohol education. NICE public health guidance [suspended].

8 References

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Appendix A: Membership of the Public Health Interventions Advisory Committee (PHIAC), the NICE project team and external contractors

Public Health Interventions Advisory Committee

NICE has set up a standing committee, the Public Health Interventions Advisory Committee (PHIAC), which reviews the evidence and develops recommendations on public health interventions. Membership of PHIAC is multidisciplinary, comprising public health practitioners, clinicians, local authority officers, teachers, social care professionals, representatives of the public, academics and technical experts as follows.

Professor Sue Atkinson CBE Independent Consultant and Visiting Professor, Department of Epidemiology and Public Health, University College London

Mr John F Barker Associate Foundation Stage Regional Adviser for the Parents as Partners in Early Learning Project, DfES National Strategies

Professor Michael Bury Emeritus Professor of Sociology, University of London. Honorary Professor of Sociology, University of Kent

Professor K K Cheng Professor of Epidemiology, University of Birmingham

Ms Joanne Cooke Programme Manager, Collaboration and Leadership in Applied Health Research and Care for South Yorkshire

Dr Richard Cookson Senior Lecturer, Department of Social Policy and Social Work, University of York

Mr Philip Cutler Forums Support Manager, Bradford Alliance on Community Care

Ms Lesley Michele de Meza Personal, Social, Health and Economic (PSHE) Education Consultant, Trainer and Writer

Professor Ruth Hall Regional Director, Health Protection Agency, South West

Ms Amanda Hoey Director, Consumer Health Consulting Limited

Mr Alasdair J Hogarth Head Teacher, Archbishops School, Canterbury

Mr Andrew Hopkin Assistant Director, Local Environment, Derby City Council

Dr Ann Hoskins Director, Children, Young People and Maternity, NHS North West

Ms Muriel James Secretary, Northampton Healthy Communities Collaborative and the King Edward Road Surgery Patient Participation Group

Dr Matt Kearney General Practitioner, Castlefields, Runcorn. GP Public Health Practitioner, Knowsley PCT

CHAIRProfessor Catherine Law Professor of Public Health and Epidemiology, UCL Institute of Child Health

Mr David McDaid Research Fellow, Department of Health and Social Care, London School of Economics and Political Science

Mr Bren McInerney Community Member

Professor Susan Michie Professor of Health Psychology, BPS Centre for Outcomes Research and Effectiveness, University College London

Professor Stephen Morris Professor of Health Economics, Department of Epidemiology and Public Health, University College London

Dr Adam Oliver RCUK Senior Academic Fellow, Health Economics and Policy, London School of Economics

Dr Mike Owen General Practitioner, William Budd Health Centre, Bristol

Dr Toby Prevost Reader in Medical Statistics, Department of Public Health Sciences, King's College London

Ms Jane Putsey Lay Representative, Chair of Trustees of the Breastfeeding Network

Dr Mike Rayner Director, British Heart Foundation Health Promotion Research Group, Department of Public Health, University of Oxford

Mr Dale Robinson Chief Environmental Health Officer, South Cambridgeshire District Council

Ms Joyce Rothschild Children's Services Improvement Adviser, Solihull Metropolitan Borough Council

Professor Mark Sculpher Professor of Health Economics, Centre for Health Economics, University of York

Dr David Sloan Retired Director of Public Health

Dr Stephanie Taylor Reader, Applied Research, Centre for Health Sciences, Barts and The London School of Medicine and Dentistry

Dr Stephen Walters Reader, Medical Statistics, University of Sheffield

Dr Dagmar Zeuner Joint Director of Public Health, Hammersmith and Fulham PCT

Expert co-optee to PHIAC:

Professor Amanda Amos Professor of Health Promotion, Public Health Sciences, University of Edinburgh

Expert testimony to PHIAC:

Ehow Armah National Coordinator, Healthy Schools Programme, Department of Health

Lisa Gill Youth Project Manager, Roy Castle Lung Foundation

Noreen Graham Deputy Director, Pupil Food Health and Safety Unit,Department for Children, Schools and Families

Lucy Holdstock Tobacco Policy Manager, Department of Health

Judith MacMorran Senior Health Promotion Specialist, Newcastle Primary Care Trust, North East region

NICE project team

Mike Kelly
CPHE Director

Catherine Swann
Associate Director

Andrew Hoy
Analyst

Patti White
Analyst

Lesley Owen
Technical Adviser (Health Economics).

External contractors

External reviewers: effectiveness reviews

Review 1: 'School-based interventions to prevent the uptake of smoking among children and young people: effectiveness review' was carried out by the West Midlands Health Technology Assessment Collaboration (University of Birmingham). The principal authors were: Olalekan Uthman, Ismail Yahaya, Mary Pennant, Sue Bayliss, Paul Aveyard, Mark Jit, Pelham Barton, Catherine Meads and Yen-Fu Chen.

Review 2: 'Facilitators and barriers to the delivery of school-based interventions to prevent the uptake of smoking among children: a systematic review of qualitative research' was carried out by the UK Centre for Tobacco Control Studies (University of Bath). The principal authors were: Linda Bauld, Janet Brandling and Lorna Templeton.

External reviewers: economic analysis

The economic review: 'School-based interventions to prevent the uptake of smoking among children and young people: cost-effectiveness review' was carried out by the West Midlands Health Technology Assessment Collaboration (University of Birmingham). The principal authors were: Mark Jit, Pelham Barton, Olalekan Uthman, Sue Bayliss, Yen-Fu Chen and Catherine Meads.

The economic model: 'School-based interventions to prevent the uptake of smoking among children and young people: cost-effectiveness model' was prepared by: Mark Jit, Pelham Barton, Yen-Fu Chen, Olalekan Uthman, Paul Aveyard and Catherine Meads.

Fieldwork

The fieldwork 'School-based interventions to prevent uptake of smoking among children and young people' was carried out by GHK Research Ltd. An additional consultation, 'NICE guidance on school-based prevention of smoking in children: consultation with young people' was carried out by the National Youth Agency.

Appendix B: Summary of the methods used to develop this guidance

Introduction

The reports of the reviews and economic analysis include full details of the methods used to select the evidence (including search strategies), assess its quality and summarise it.

The minutes of the PHIAC meetings provide further detail about the Committee's interpretation of the evidence and development of the recommendations.

All supporting documents are listed in appendix E and are available online.

Guidance development

The stages involved in developing public health intervention guidance are outlined in the box below.

1. Draft scope released for consultation
2. Stakeholder meeting about the draft scope
3. Stakeholder comments used to revise the scope
4. Final scope and responses to comments published on website
5. Evidence review(s) and economic analysis undertaken
6. Evidence and economic analysis released for consultation
7. Comments and additional material submitted by stakeholders
8. Review of additional material submitted by stakeholders (screened against inclusion criteria used in review/s)
9. Evidence and economic analysis submitted to PHIAC
10. PHIAC produces draft recommendations
11. Draft guidance released for consultation and for field testing
12. PHIAC amends recommendations
13. Final guidance published on website
14. Responses to comments published on website

Key questions

The key questions were established as part of the scope. They formed the starting point for the reviews of evidence and were used by PHIAC to help develop the recommendations. The overarching question was:

- Which school-based interventions, or combination of school-based interventions, are effective and cost effective in preventing children and young people from taking up smoking?

The subsidiary questions were:

- What factors aid the delivery of effective school-based interventions to prevent the uptake of smoking?
- What are the barriers to successful delivery?

These questions were made more specific for the reviews (see reviews for further details).

Reviewing the evidence of effectiveness

Both the effectiveness review and the qualitative evidence review made use of the same base literature search. This is detailed below, followed by more information on the specific criteria used by both reviews in selecting evidence.

Identifying the evidence

The following databases were searched for relevant studies (searches were conducted for studies published from January 1990 to November 2008):

- ASSIA (Applied Social Science Index and Abstracts)
- Cochrane Library (Wiley):
  - Cochrane Database of Systematic Reviews (CDSR)
  - Cochrane Central Register of Controlled Trials (CENTRAL)
- EMBASE
- ERIC

- MEDLINE
- Health Management Information Consortium (HMIC)
- PsycINFO
- York Centre for Reviews and Dissemination database (Database of Abstracts of Reviews of Effects [DARE] and Health Technology Assessment [HTA] database)

The database searches were supplemented by searches of the following websites:

- ARIF website and database
- ASH (Action on Smoking and Health)
- ASH Scotland
- ASH Wales
- Bandolier
- Centre for UK Tobacco Control Research
- Clinical Evidence
- Cochrane Public Health Group
- Department for Children, Schools and Families
- 'Every child matters: change for children'
- Health Scotland
- 'National service framework for children, young people and maternity services' case studies database
- NICE website – for previous Health Development Agency publications at and NICE public health guidance
- Public health observatories (East Midlands, Eastern Region, London, North East, North West, Scotland, South East, South West, West Midlands, Yorkshire and Humber, Wales Centre for Health)
- Quit

- The Campbell Collaboration
- The Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre Social Science Research Unit, Institute of Education, University of London)
- The Trials Register of Promoting Health Interventions (TRoPHI)
- TRIP database
- UK Public Health Association [link broken]

Selection criteria

Inclusion and exclusion criteria for each review varied and details can be found online.

Review 1 (the effectiveness review) included:

- randomised controlled trials (RCTs) with a follow-up of 6 months or more and with a sample size of 500 or greater. They had to include a comparator and report a change in smoking prevalence as an outcome.

Review 2 (the qualitative review) included:

- studies that involved qualitative reporting of outcomes.

In general, studies were included in both reviews if they:

- addressed the prevention of smoking among children and young people aged under 19 who attended an educational institution
- were school-based or included a school-based component as part of a combined intervention
- were conducted in Organization for Economic Cooperation and Development (OECD)-listed countries
- were published in English from 1990 onwards
- were reported in English.

Studies were excluded from review 1 if they were not an RCT, had a follow-up of less than 6 months and the sample size was less than 500.

Studies were excluded from both reviews if they:

- focused on:
  - children under age 5 who do not attend an educational institution
  - children and young people who are educated at home
  - children and young people who are excluded from school
  - young people aged over 16 who are not in education
  - young people aged 19 and older
- had no school component
- were conducted in non-OECD countries
- were published before 1990
- were not published in English.

Quality appraisal

Included papers in both reviews were assessed for methodological rigour and quality using the NICE methodology checklist, as set out in the NICE technical manual 'Methods for the development of NICE public health guidance' (see appendix E). Each study was graded (++, +, –) to reflect the risk of potential bias arising from its design and execution.

Study quality

++ All or most of the methodology checklist criteria have been fulfilled. Where they have not been fulfilled, the conclusions are thought very unlikely to alter.

+ Some of the methodology checklist criteria have been fulfilled. Those criteria that have not been fulfilled or not adequately described are thought unlikely to alter the conclusions.

– Few or no methodology checklist criteria have been fulfilled. The conclusions of the study are thought likely or very likely to alter.

Summarising the evidence and making evidence statements

The review data was summarised in evidence tables (see full reviews).

The findings from the reviews were synthesised and used as the basis for a number of evidence statements relating to each key question. The evidence statements were prepared by the external contractors (see appendix A). The statements reflect their judgement of the strength (quantity, type and quality) of evidence and its applicability to the populations and settings in the scope.

Economic analysis

The economic analysis consisted of a review of economic evaluations and a cost-effectiveness analysis.

Review of economic evaluations

A systematic review of economic literature was undertaken by searching major bibliographic databases from their inception up to October 2008. These included:

- ASSIA
- Cochrane Library
- EMBASE
- ERIC
- HMIC
- MEDLINE
- PsycINFO
- York Centre for Reviews and Dissemination database.

This database search was supplemented by searches of selected websites.

Economic evaluations were selected if they:

- were conducted in OECD countries
- were published in English from 1990 onwards

- assessed the cost-effectiveness of school-based interventions to prevent the uptake of smoking among children and young people.

The methodological quality of each study was rated using the Drummond checklist, and its applicability to the relevant population in the UK assessed. Applicability for economic evaluations was assessed on the basis of two dimensions:

- Whether or not the **population** being studied was comparable to the current UK population.
- Whether or not the **methodology** of the study was likely to yield results similar to a study based on the NICE reference case.

Cost-effectiveness analysis

A number of assumptions were made which could underestimate or overestimate the cost effectiveness of the interventions (see review modelling report for further details).

An economic model was constructed to incorporate data from the reviews of effectiveness and cost effectiveness. The results are reported in: 'School-based interventions to prevent the uptake of smoking among children and young people: cost-effectiveness model'.

Fieldwork

Fieldwork was carried out to evaluate how relevant and useful NICE's recommendations are for practitioners and how feasible it would be to put them into practice. It was conducted with practitioners and commissioners involved in tobacco control, health promotion and education services. This included those working in local authorities, educational establishments, the NHS and the voluntary sector.

The fieldwork comprised:

- 18 focus groups carried out by GHK Consulting Ltd with commissioners, tobacco control specialists, Healthy Schools coordinators, teachers, youth workers and voluntary organisation staff in all nine English regions.
- Four workshops carried out by the National Youth Agency with schoolchildren aged 11–17 years based in urban and rural locations.

The main issues arising from the resulting two studies are set out in appendix C under fieldwork findings. The full fieldwork reports, 'School-based interventions to prevent the uptake of smoking

among children and young people' and 'NICE guidance on school-based prevention of smoking in children: consultation with young people', are available.

How PHIAC formulated the recommendations

At its meeting in May 2009 PHIAC considered the evidence reviews and review of cost effectiveness to determine:

- whether there was sufficient evidence (in terms of quantity, quality and applicability) to form a judgement
- whether, on balance, the evidence demonstrates that the intervention is effective, ineffective or equivocal
- where there is an effect, the typical size of effect.

PHIAC developed draft recommendations through informal consensus, based on the following criteria.

- Strength (quality and quantity) of evidence of effectiveness and its applicability to the populations/settings referred to in the scope.
- Effect size and potential impact on the target population's health.
- Impact on inequalities in health between different groups of the population.
- Cost effectiveness (for the NHS and other public sector organisations).
- Balance of risks and benefits.
- Ease of implementation and any anticipated changes in practice.

Where possible, recommendations were linked to an evidence statement(s) (see appendix C for details). Where a recommendation was inferred from the evidence, this was indicated by the reference 'IDE' (inference derived from the evidence).

The draft guidance, including the recommendations, was released for consultation in September 2009. At its meeting in November 2009, PHIAC amended the guidance in light of comments from stakeholders, experts and the fieldwork. The guidance was signed off by the NICE Guidance Executive in January 2010.

Appendix C: The evidence

This appendix lists evidence statements from two reviews provided by external contractors (see appendix A) and links them to the relevant recommendations (see appendix B for the key to quality assessments). The evidence statements are presented here without references – these can be found in the full review (see appendix E for details). It also sets out a brief summary of findings from the economic appraisal.

Evidence statement ES8 indicates that the linked statement is numbered ES8 in the review 'School-based interventions to prevent the uptake of smoking among children and young people: effectiveness review'. **Evidence statement QR3** indicates that the linked statement is numbered QR3 in the review 'Facilitators and barriers to the delivery of school-based interventions to prevent the uptake of smoking among children: a systematic review of qualitative research'.

The reviews and economic appraisal are available on the NICE website. Where a recommendation is not directly taken from the evidence statements, but is inferred from the evidence, this is indicated by **IDE** (inference derived from the evidence) below.

Recommendation 1: evidence statements QR1, QR5

Recommendation 2: evidence statements ES1, ES7, ES13, ES19, ES21, ES26, QR4, QR6

Recommendation 3: evidence statements ES11, QR3; IDE

Recommendation 4: evidence statement QR4

Recommendation 5: IDE

Evidence statements

Evidence statement ES1

There is evidence from 27 studies that provided usable data for meta-analysis that interventions may be effective. Meta-analysis of 27 randomised controlled trials (RCTs) demonstrated a significant intervention effect for school-based intervention for preventing uptake of smoking among children. There was moderate statistical heterogeneity between the trial results.

Applicability: most of the studies took place outside of the UK It is not clear if these findings are directly applicable to the UK.

Evidence statement ES7

There is moderate evidence indicating that multi-component interventions incorporating both school and community components (with or without an additional family component) are ineffective in preventing the uptake of smoking compared to usual education. Five RCTs provided evidence comparing a multi-component intervention that incorporates both school and community components to usual education (three [+] USA), one [-] Australia, one [-] UK). Four of the studies (two [+] USA, one [-] Australia, one [-] UK) found no significant difference between the multi-component intervention group and the usual education group during a maximum follow-up between 6 months (one study [-] UK).and 5 years (one study [+] USA). One study ([+] USA) found no difference at 3-year follow-up and small, marginally significant positive or negative intervention effects (depending on the school component) at 4-year follow-up.

Evidence statement ES11

It is not clear whether effectiveness of school-based smoking prevention programmes depend on the status of the person delivering it. There is conflicting evidence whether peer-led programmes produced most effective intervention effects on smoking initiation. It is important to note that a peer-led programme may be differentially effective based on how leaders are selected and how groups are formed, and may be curriculum-dependent. There is some evidence that teacher-led, health educator-led, and peer-led programmes tend to be equally effective.

Seven RCTs examined whether effectiveness of school-based smoking prevention programmes depend on the status of the person delivering it.

Three other studies provided evidence that peer-led interventions tend to enhance smoking prevention programmes. For example, results from one (+) USA RCT showed a marked suppression in the onset of both experimental and regular smoking among those students exposed to the resistance training with peer involvement. Similarly, one (-) USA RCT found that a cognitive-behavioural approach when carried out by peer-leaders and when additional boosters are provided can reduce tobacco use. Yet one (+) USA RCT provided evidence that a peer-led programme will be differentially effective based on how leaders are selected and how groups are formed, and this effect may be curriculum dependent.

In one RCT ([-] USA), there was no statistically significant difference in regular smoking rates among students taught by health educators and those taught by adult teachers assisted by older

teens. One (++) UK RCT found that the effect of ASSIST intervention was much the same for peer supporters and non-peer supporters. Similarly, one (-) Australia RCT confirmed non-superiority of peer-led programmes to teacher-led programmes. However, this result was gender-specific.

Both the teacher-led and peer-led programmes reduced, to about the same degree, the uptake of smoking by girls while only the teacher-led programme appeared to be effective in boys. One (++) Canada RCT provided evidence that teachers and nurses were equally effective providers regardless of delivery method. While, one (-) USA RCT reported that students exposed to interactive health educator-led interventions were less likely to use tobacco compared to those not exposed to health educator-led instruction.

Applicability: most of the studies were conducted in the USA. It is not clear if these findings are directly applicable to the UK since the interventions under investigation are specific to USA. Furthermore, demographics of the participants are different from those in the UK. Only one (++) UK study is likely to be directly applicable.

ASSIST intervention model

A Stop Smoking In Schools Trial (ASSIST) was a randomised controlled trial involving the use of peer supporters to encourage year eight students (aged 12 and 13) not to smoke. Initially, all year eight students were asked to fill in a questionnaire to nominate the peer supporters. They were asked questions such as, 'who do you respect in year eight in your school?'; and 'who are good leaders in sports or other group activities in year eight in your school?' Those nominated took part in a 2-day external training session led by trainers experienced in youth work and a public health specialist. Following the training, the peer supporters spent 10 weeks having informal conversations about smoking with their class mates. These took place during travel to and from school, break and lunchtime and after school. The peer supporters logged the conversations in a simple diary. The trainers had four follow-up meetings with them to help solve any problems and monitor the diaries.

Evidence statement ES13

There is clear evidence that the addition of booster sessions enhanced effectiveness of main programmes.

Four studies (one [++] and three [-]) analysed effectiveness of booster sessions. Evidence from one (++) USA study suggests that addition of booster sessions significantly enhanced the effectiveness of the main programme and was more effective than the delayed programme controls. One (-) USA study found that boosters can be an effective tool for maintaining or increasing the effectiveness of

smoking prevention programmes. One (-) USA study revealed that addition of booster sessions to cognitive-behavioural approach can reduce tobacco use. Another (-) USA study showed that continued intervention students reported significantly less smoking than lapsed intervention and continued control students.

Applicability: all four studies were conducted in the USA. It is not clear if the findings are directly relevant to the UK.

Evidence statement ES19

There is conflicting evidence of differential effect of intervention according to the sex of the target audience. There is moderate evidence that sex is an important predictor of post-test smoking, but direction of effect (either in male or female student) is inconclusive. Furthermore, association of sex with smoking prevalence depends on how the outcome was measured. One recent study ([+] UK) found no significant difference in effectiveness of school-based intervention among male and female students.

Another study ([++] USA) provided no evidence of Hutchinson Smoking Prevention Project impact on the prevalence of daily smoking, either for girls or for boys. Three studies (one [++] Canada; one [+] Canada and one [-] USA) demonstrated that the intervention was more effective among male students; while only one study ([-] Australia) found that both teacher-led and peer-led programmes reduced the taking up of smoking by girls to about the same degree.

There was also conflicting evidence from nine studies whether sex was an important predictor of post-test smoking. Only one study ([-] The Netherlands) provided evidence that sex was not associated with post-test smoking. Two studies (one [+] USA and one [-] USA) found that female students were more likely than male students to have reported smoking at follow-up and only one study ([-] Australia) found that boys were less likely than girls to have reported smoking at follow-up. Yet, three studies (two [-] USA; and one [-] The Netherlands) revealed that males were more likely to be a smoker than their female counterparts. Another two studies (one [+] USA and one [+] Italy), demonstrated that compared to male students, female students were less likely to have used tobacco.

Applicability: most of the studies were conducted in the USA. It is not clear if these findings are directly applicable to the UK since the interventions under investigation are specific to the USA. Furthermore, demographics of the participants are different from those in the UK. Only one study is likely to be directly applicable.

Evidence Statement ES21

There is moderate evidence that ethnicity is an important predictor of smoking behaviour, such that white students were less likely to be smokers. Similarly, there is moderate evidence that the observed association between race and smoking behaviour depended on how the outcome was measured.

Four studies (two [+] USA and two [-] USA) specifically studied whether ethnicity is an important factor in predicting post-test smoking among students exposed to school-based smoking prevention programmes. Only one study ([-] USA) demonstrated no association between ethnicity and smoking status. However, three studies found that ethnicity was an important factor in predicting post-test smoking behaviour. For example, one study ([+] USA) provided evidence that white students were less likely to be classified as smoker. Two studies (one [+] USA and one [-] USA) revealed that ethnicity affects smoking prevalence depending on how the outcome was measured. One multi-country study ([-] EU) in six European countries, provided evidence that in The Netherlands there was differential significant effects for adolescents with a Dutch and non-Dutch origin. The Dutch ESFA programme was effective for non-native adolescents with fewer new weekly smokers compared to new weekly smokers in the control group. An opposite effect was found in native Dutch adolescents with more new weekly smokers in the experimental compared to new smokers in the control group.

Applicability: none of the studies were conducted in the UK. It is not clear if the USA/EU findings are directly applicable to the UK since the school-based prevention programmes under investigation are specific to USA. Furthermore, demographics of the participants are different from those in the UK.

Evidence statement ES26

In one RCT, engagement with the intervention (reported programme interesting/very interesting and useful) was shown to be related to follow-up smoking status; those engaging being less likely to be smokers at 1 year.

Evidence statement QR1

Delivery context: evidence from two UK (one [++], one [+]), one Canadian (++) and three American (all [+]) qualitative studies suggests that aspects of the delivery context of school-based interventions act as barriers or facilitators to effective delivery. The main facilitators were:

- timing the intervention to suit (that is, not conflict with) school-assessment schedules

- timing the intervention to include multiple sessions over the course of a school year
- reinforcing smoking prevention messages in school curricula until school leaving age
- delivering school-based prevention interventions as part of a wider tobacco control strategy
- involving key partner organisations in design and delivery (such as the school nursing service and universities).

The main barrier was delivering the intervention in a setting where teachers and other school staff are smokers.

Evidence statement QR3

Peer interventions: there is evidence from three UK (two [++] and one [+]) and one American (+) study and one systematic review (++) that interventions that directly address peer smoking norms through involving young people in delivery can facilitate the successful implementation of school-based prevention interventions. The main facilitators to the delivery of peer interventions were:

- nomination of peer supporters by fellow students
- training for peer supporters delivered away from school and by external professionals
- flexibility for peer supporters in how and when they deliver the intervention
- adding 'value' to peer intervention by inclusion of other prevention education materials (such as videos) in schools
- good communication between the external intervention development or research team and school staff.

Barriers to the delivery of peer interventions were:

- teacher's concern about 'suitability' of some peer supporters selected by fellow students
- peer norms and peer group structure can influence how much and when adolescents smoke, and can also influence the extent to which young people are receptive to prevention messages delivered by peers.

Evidence statement QR4

Delivery mechanisms: there is evidence from three UK (one [++], one [+] and one [-]) and three

American (all [+]) qualitative studies that specific elements of the delivery mechanism for school-based prevention interventions can act as facilitators or barriers. Facilitators include:

- delivery of the intervention by trusted external professionals (such as doctors)
- delivery of the intervention by non-smoking teachers
- delivery of the intervention by teachers with higher self-efficacy
- involvement of parents in delivery (primarily delivery of supporting materials at home).

Barriers included:

- delivery of the intervention by teachers who are reluctant to discuss parental smoking
- delivery of the intervention by teachers who use outdated methods to communicate prevention messages.

Evidence statement QR5

Smokefree schools: there is evidence from one UK (+), one Canadian (++) and one American (-) study that the extent and enforcement of smokefree school policies can act as a facilitator or barrier to school-based smoking prevention. Facilitators included:

- smokefree policies that include all internal areas and all school grounds
- smokefree policies that applied to staff as well as pupils.

Barriers included:

- existing designated smoking areas in school grounds or buildings
- poor enforcement of smokefree policies.

Evidence statement QR6

Programme content: there is evidence from seven American (all [+]), one Canadian (++) and one UK (-) qualitative studies that specific elements of programme content can act as facilitators or barriers to the delivery of school-based prevention interventions. Facilitators include:

- content that is innovative and interactive

- content that includes role play
- content that includes new material, such as on the cost of smoking
- content that includes correcting misconceptions of high smoking prevalence among young people
- content that is ethnically and culturally sensitive
- content that is non-judgemental
- content that included de-normalisation approaches (building on the Florida 'Truth' campaign approach, exposing the activities of the tobacco industry).

Barriers include:

- content that included fear-based approaches to prevention
- content that is too complex.

Expert testimony

Expert testimony to PHIAC (see appendix A) was used to inform the recommendations. Please refer to the PHIAC minutes for further details.

Cost-effectiveness evidence

Overall, school-based smoking prevention programmes were found to be cost-effective, although there was a lack of evidence on their long-term effects.

A modelling analysis was undertaken to explore whether a delay in the age of smoking uptake makes it more likely that someone will quit later in life. Effect sizes were based on 26 RCTs identified during the systematic review of effectiveness.

The outcome of the analysis suggests that a school-based smoking prevention programme may be cost effective at a threshold of £20,000 to £30,000 per quality adjusted life year (QALY) gained. This was the case when taking into account a range of factors. This includes the relationship between age of smoking initiation and probability of smoking in later life, the mortality of smokers compared to non-smokers, the health-related quality of life of people who smoke and their lifetime medical costs.

For further details, see 'School-based interventions to prevent the uptake of smoking among children and young people: cost-effectiveness model'.

Fieldwork findings

Fieldwork aimed to test the relevance, usefulness and feasibility of putting the recommendations into practice. PHIAC considered the findings when developing the final recommendations. For details, go to the fieldwork section in appendix B and online.

Fieldwork participants who are involved in smoking prevention activities in an educational setting were fairly positive about the recommendations and their potential to help prevent smoking among children and young people. Many participants stated that:

- this was an important but neglected topic in schools
- connections with the National Healthy Schools programme should be clarified and the guidance should use the terminology used by educators
- more emphasis should be placed on the role of school staff in delivering interventions, rather than depending on outside experts
- more emphasis should be put on integrating information on smoking into the general curriculum (that is, smoking prevention should take a cross-curriculum approach)
- more clarity is needed on the recommendation about using a peer-led programme.

The young people who participated in the focus groups were positive about the recommendations, although their experiences of PSHE education varied. Many participants:

- strongly approved of a 'whole school', joined-up approach to smoking prevention which also encourages those who are experimenting with smoking to quit
- wanted to be directly involved in the design, delivery and evaluation of measures to prevent smoking
- wanted to be able to discuss smoking in the context of their own lives and experiences.

Appendix D: Gaps in the evidence

PHIAC identified a number of gaps in the evidence relating to the interventions under examination, based on an assessment of the evidence and expert comments. These gaps are set out below.

- There is little UK evidence on how different factors such as age, gender, ethnicity or socioeconomic status affect the effectiveness or cost effectiveness of interventions based in schools and other educational establishments.
- There is little evidence, particularly evidence applicable to the UK, of interventions likely to be effective with pupils who are most at risk of starting to smoke.
- There is little UK evidence of the effectiveness of multi-component interventions, such as combining school-based with mass-media or family-based interventions.
- There is little evidence of what elements of a programme work best to prevent smoking among children of different ages.
- There is little evidence about how to make programmes culturally sensitive in a multi-cultural school or further education setting.
- There is little evidence of the long-term effects of school-based smoking prevention programmes because young people are seldom followed-up after school leaving age.
- There is no UK evidence on whether it is more effective to provide interventions focused on smoking prevention alone, or interventions to prevent a range of risky behaviours, including smoking.
- There is a lack of evidence about how applicable programmes like the US 'Truth' campaign are to the UK because of the different policy and legislative climate in the UK. (The Truth campaign aims to educate children and young people about the environmental and human rights issues involved in the production and supply of tobacco.)

The Committee made six recommendations for research. These are listed in section 5.

Appendix E: supporting documents

Supporting documents are available from the NICE website. These include the following.

- Reviews:
  - Review 1: 'School-based interventions to prevent the uptake of smoking among children and young people: effectiveness review'
  - Review 2: 'Facilitators and barriers to the delivery of school-based interventions to prevent the uptake of smoking among children: a systematic review of qualitative research'.
- Economic analysis:
  - 'School-based interventions to prevent the uptake of smoking among children and young people: cost-effectiveness review'
  - 'School-based interventions to prevent the uptake of smoking among children and young people: cost-effectiveness model'.
- Fieldwork reports:
  - 'School-based interventions to prevent the uptake of smoking among children and young people'
  - 'NICE guidance on school based prevention of smoking in children: consultation with young people'.
- A quick reference guide for professionals whose remit includes public health and for interested members of the public.

For information on how NICE public health guidance is developed see:

- 'Methods for development of NICE public health guidance (second edition, 2009)'
- 'The NICE public health guidance development process: An overview for stakeholders including public health practitioners, policy makers and the public (second edition, 2009)'.

Changes after publication

February 2012: minor maintenance.

January 2013: minor maintenance.

About this guidance

NICE public health guidance makes recommendations on the promotion of good health and the prevention of ill health.

This guidance was developed using the NICE public health intervention guidance process.

The recommendations from this guidance have been incorporated into a NICE Pathway. Tools to help you put the guidance into practice and information about the evidence it is based on are also available.

Your responsibility

This guidance represents the views of the Institute and was arrived at after careful consideration of the evidence available. Those working in the NHS, local authorities, the wider public, voluntary and community sectors and the private sector should take it into account when carrying out their professional, managerial or voluntary duties.

Implementation of this guidance is the responsibility of local commissioners and/or providers. Commissioners and providers are reminded that it is their responsibility to implement the guidance, in their local context, in light of their duties to avoid unlawful discrimination and to have regard to promoting equality of opportunity. Nothing in this guidance should be interpreted in a way which would be inconsistent with compliance with those duties.

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Contact NICE

National Institute for Health and Clinical Excellence
Level 1A, City Tower, Piccadilly Plaza, Manchester M1 4BT
www.nice.org.uk
nice@nice.org.uk

0845 033 7780

Accreditation