

# Smokeless tobacco: South Asian communities

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.

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## Introduction: scope and purpose of this guidance

### *What is this guidance about?*

This guidance aims to help people of South Asian origin to stop using smokeless tobacco. The recommendations cover:

- assessing local need
- working with local South Asian communities
- commissioning smokeless tobacco services
- providing brief advice and referral: dentists, GPs, pharmacists and other health professionals
- specialist tobacco cessation services (including stop smoking services)
- training for practitioners.

The phrase 'of South Asian origin' is used in this guidance to mean people with ancestral links to Bangladesh, India, Nepal, Pakistan or Sri Lanka.

The term 'smokeless tobacco' is used in this guidance to refer to any type of product containing tobacco that is placed in the mouth or nose and not burned and which is typically used in England by people of South Asian origin. (See [section 1](#) for more on these products.) It does not include products that are sucked, like 'snus' or similar oral snuff products<sup>[1]</sup>. (Under UK law it is an offence to supply tobacco for oral use unless it is intended to be smoked or chewed<sup>[2]</sup>.)

### *Who is this guidance for?*

The guidance is for commissioners and providers of tobacco cessation services (including stop smoking services), health education and training services, health and wellbeing boards and health and social care practitioners. It is also for all those with public health as part of their remit, in particular, the health of South Asian communities. They may be working within the NHS, local authorities or the wider public, private, voluntary and community sectors. This includes:

- directors of public health
- GPs and their staff
- dentists, dental nurses, dental hygienists

- community pharmacists, health visitors, midwives, nurses and other health professionals
- community and faith leaders
- youth workers.

The guidance may also be of interest to local authority elected members, people who want to stop using smokeless tobacco, their families and other members of the public.

### *Why is this guidance being produced?*

The Department of Health (DH) asked the National Institute for Health and Clinical Excellence (NICE) to produce this guidance.

It should be implemented alongside other relevant guidance and regulations (for details see sections [4](#) and [7](#) on implementation and related NICE guidance respectively).

### *How was this guidance developed?*

The recommendations are based on the best available evidence. They were developed by the Public Health Interventions Advisory Committee (PHIAC).

Members of PHIAC are listed in [appendix A](#).

The guidance was developed using the NICE public health intervention process. See [appendix B](#) for details.

Supporting documents used to prepare this document are listed in [appendix E](#).

### *What evidence is the guidance based on?*

The evidence that PHIAC considered included: reviews of the evidence, economic modelling and the testimony of expert witnesses. Further detail on the evidence is given in the considerations section ([section 3](#)) and in appendices [B](#) and [C](#).

In some cases, the evidence was insufficient and PHIAC has made recommendations for future research.

The guidance complements NICE guidance on smoking cessation (for further details, see [section 7](#)).

<sup>[1]</sup> As defined in the [European Union's Tobacco Product Directive](#) (European Parliament and the Council of the European Union 2001).

<sup>[2]</sup> See the Local Government Association's [Niche Tobacco Products Directory](#) website for further information.

# 1 Recommendations

## *Introduction*

The Public Health Interventions Advisory Committee (PHIAC) considers that the recommended approaches are cost effective.

The evidence statements underpinning the recommendations are listed in [appendix C](#).

The recommendations in this guidance reflect the evidence identified and the discussions of PHIAC. For some approaches, there was no evidence and their absence should not be taken as a judgement on whether they are effective or cost effective.

For the research recommendations and gaps in research, see [section 5](#) and [appendix D](#) respectively.

## *Background*

This guidance focuses on cessation, that is, interventions that help people of South Asian origin to stop using smokeless tobacco products. While prevention activities are, strictly speaking, outside its scope, some of the interventions identified may also help stop people from taking up the habit in the first place. (For example, they may help young people who are experimenting with tobacco to give it up before they become addicted to it.)

The recommendations should be implemented as part of other activities and services to address the general health needs of South Asian communities.

The recommendations have been made within the context of local tobacco control strategies, including the provision of local services and initiatives to prevent the uptake of tobacco and help smokers and other tobacco users to quit. Wider tobacco control measures, for example, legislation, taxation, advertising regulation and the use of health warnings on products, are not covered.

The gender, age, occupation, religious background and country of origin of users within South Asian communities living in England will vary across the country, so the approaches recommended will need to be tailored accordingly.

## Smokeless tobacco

The guidance covers a variety of smokeless tobacco products used by people of South Asian origin in England. The types used vary across the country but they can be divided into 3 main categories, based on their ingredients (Stanfill et al. 2010):

- Tobacco with or without flavourants: misri India tobacco (powdered) and qimam (kiman).
- Tobacco with various alkaline modifiers: khaini, naswar (niswar, nass) and gul.
- Tobacco with slaked lime as an alkaline modifier and areca nut: gutkha, zarda, mawa, manipuri and betel quid (with tobacco).

Users do not always recognise the term 'smokeless tobacco'. Sometimes they will be unaware that the products contain tobacco (although the products are legally required to carry a health warning<sup>[3]</sup>). That is why it is also necessary to refer to these products by the names used locally.

A number of the products contain areca nut, a mildly euphoric stimulant which is addictive and carcinogenic in its own right. (Any chewable products that do not contain tobacco are the responsibility of the Food Standards Agency. The Agency is currently working with UK Asian communities to provide guidance on how to minimise the risk from consuming products containing areca nut.)

## Specialist tobacco cessation services

In this guidance, 'Specialist tobacco cessation services' refers to evidence-based services that offer tobacco users support to help them quit (regardless of whether they smoke or use a smokeless variety). In England, services of this type are generally referred to as 'stop smoking services' or 'smoking cessation services' as they normally focus on people who smoke tobacco. However, a service might also brand itself as a generic tobacco cessation service, to emphasise a focus on more than one form of tobacco. For further details, see NICE guidance on [smoking cessation services](#).

## Brief interventions

Brief interventions involve verbal advice, discussion, negotiation or encouragement, with or without written or other support or follow-up. They can be delivered by a range of primary and community care professionals. These interventions are often opportunistic, typically taking no more than a few minutes for basic advice, up to around 20 minutes for a more extended, individually-focused discussion. They may also involve a referral for further interventions or more intensive support.

Evidence shows that a brief intervention to help people quit smoking can be effective. The way a brief intervention to help smokers is delivered depends on a number of factors, including the person's willingness to quit, how acceptable they find the intervention and previous methods they have used. It may include one or more of the following:

- simple opportunistic advice
- an assessment of the person's commitment to quit
- pharmacotherapy and/or behavioural support
- self-help material
- referral to more intensive support such as to an evidence-based smoking cessation service.

(See NICE guidance on [brief interventions and referral for smoking cessation](#) and [smoking cessation services](#) for more information on the general principles of tobacco cessation.)

### *Whose health will benefit from the recommendations?*

- Members of South Asian communities in England who use smokeless tobacco products. This includes people who are isolated from these communities, for example, because they live outside the immediate area where the community is based, or because they rarely leave their home.
- People of South Asian origin are the focus of this guidance as they are the predominant users of smokeless tobacco products in England. However, others who use these products may also benefit from the recommendations, as health professionals, as a result, will be more aware of how to identify and help them.

### *Recommendation 1 Assessing local need*

#### **Who should take action?**

- Directors of public health.
- Local authority specialists and public health commissioners responsible for local tobacco cessation activities.
- Health and wellbeing boards.
- Clinical commissioning groups.

- Dental public health consultants.
- Managers of tobacco cessation services.

### What action should they take?

- As part of the local joint strategic needs assessment (JSNA), gather information on where, when and how often smokeless tobacco cessation services are promoted and provided to local South Asian communities – and by whom. Aim to get an overview of the services on offer.
- Consult with local voluntary and community organisations that work with, or alongside, South Asian communities to understand their specific issues and needs in relation to smokeless tobacco (see [recommendation 2](#)).
- Collect and analyse data about the use of smokeless tobacco among local South Asian communities. For example, collect data from local South Asian voluntary and community organisations, dental health professionals and primary and secondary care services. These data should provide information on:
  - prevalence and incidence of smokeless tobacco use and detail on the people who use it (for example, their age, ethnicity, gender, language, religion, disability status and socioeconomic status)
  - people who use smokeless tobacco and do not use cessation services
  - types of smokeless tobacco used
  - perceived level of health risk associated with these products
  - circumstances in which these products are used locally
  - proportion and demographics of people who both smoke and use smokeless tobacco products.
- Consider working with neighbouring local authorities to analyse routinely collected data from a wider geographical area on the health problems associated with smokeless tobacco among local South Asian communities. In particular, collect and analyse data on the rate of oropharyngeal cancers. Note any demographic patterns. Data could be gathered from local cancer registers, Hospital Episode Statistics, public health observatories and local cancer networks.

- Collect any available information from tobacco cessation services on the number of South Asian people who have recently sought help to give up smoking or smokeless tobacco. Depending on the level of detail available, data should be broken down demographically (for example, by age, ethnic suborigin, gender, religion and socioeconomic status).
- Use consistent terminology to describe the products, as specified in the Local Government Association's [Niche tobacco products directory](#) website. Note any local variation in the terminology used by retailers and consumers.

## *Recommendation 2 Working with local South Asian communities in areas of identified need*

### **Who should take action?**

- Directors of public health.
- Local voluntary and community organisations with a responsibility for tobacco cessation or that work with South Asian communities.
- Managers of tobacco cessation services.
- People who work with children and young people.
- Faith leaders and others involved in faith centres.
- Health and social care practitioners, for example, midwives, health visitors and youth workers.
- Health and wellbeing boards.
- Clinical commissioning groups.
- Dental health professionals including dentists, dental hygienists and dental nurses.
- Others with a remit for managing tobacco cessation services or with responsibility for the health and wellbeing of South Asian communities.

### **What action should they take?**

- Work with local South Asian communities to plan, design, coordinate, implement and publicise activities to help them stop using smokeless tobacco. Develop relationships and build trust between relevant organisations, communities and people by involving them in all aspects of planning. Take account of existing and past activities to address smokeless tobacco use and

other health issues among these communities. (Also see NICE guidance on [community engagement](#).)

- Work with local South Asian communities to understand how to make services more accessible. For example, if smokeless tobacco cessation services are provided within existing mainstream tobacco cessation services, find out what would make it easier for South Asian people to use the service.
- Work in partnership with existing community initiatives to raise awareness of local smokeless tobacco cessation services and how to access them. Ensure any material used to raise awareness of the services:
  - uses the names that the smokeless tobacco products are known by locally, as well as the term 'smokeless tobacco' (see [recommendation 1](#))
  - provides information about the health risks associated with smokeless tobacco and the availability of services to help people quit
  - challenges the perceived benefits – and the relative priority that users may place on these benefits (compared with the health risks). For example, some people think smokeless tobacco is an appropriate way to ease indigestion or relieve dental pain, or helps freshen the breath
  - addresses the needs of people whose first language is not English (by providing translations)
  - addresses the needs of people who cannot read in any language (by providing material in a non-written form, for example, in pictorial, audio or video format)
  - includes information for specific South Asian subgroups (for example, older Bangladeshi women) where rates of smokeless tobacco use are known to be high
  - discusses the concept of addiction in a way that is sensitive to culture and religion (for example, it may be better to refer to users as having developed a 'habit', rather than being 'addicted')
  - does not stigmatise users of smokeless tobacco products within their own community, or in the eyes of the general community.
- Use existing local South Asian information networks (including culturally specific TV and radio channels), and traditional sources of health advice within South Asian communities to disseminate information on smokeless tobacco.

- Use venues and events that members of local South Asian communities frequent to publicise, provide or consult on cessation services with them. (Examples include educational establishments and premises where prayer groups or cultural events are held.)
- Raise awareness among those who work with children and young people about smokeless tobacco use. This includes:
  - providing teachers with information on the harm that smokeless tobacco causes and which also challenges the perceived benefits – and the priority that users may place on these perceived benefits
  - encouraging teachers to discuss with their students the reasons why people use smokeless tobacco. This could take place as part of drug education, within personal, social, health and economic (PSHE) education, or within any other relevant part of the curriculum.

### *Recommendation 3 Commissioning smokeless tobacco services in areas of identified need*

#### **Who should take action?**

- Directors of public health.
- Public health commissioners and local authority specialists responsible for local tobacco cessation services.
- Health and wellbeing boards.
- Clinical commissioning groups.
- Managers of tobacco cessation services.

#### **What action should they take?**

- If local needs assessment shows that it is necessary (see [recommendation 1](#)), commission a range of services to help South Asian people stop using smokeless tobacco. Services should be in line with any existing local agreements or local enhanced service arrangements.
- Provide services for South Asian users either within existing tobacco cessation services or, for example, as:

- A stand-alone service tailored to local needs (see [recommendation 5](#)). This might cater for specific groups such as South Asian women, speakers of a specific language or people who use a certain type of smokeless tobacco product (the latter type of service could be named after the product, for example, it could be called a 'gutkha' cessation service).
- Part of services offered within a range of healthcare and community settings (for example, GP or dental surgeries, community pharmacies and community centres – see [recommendation 4](#)).
- Ensure local smokeless tobacco cessation services are coordinated and integrated with other tobacco control, prevention and cessation activities, as part of a comprehensive local tobacco control strategy. The services (and activities to promote them) should also be coordinated with, or linked to, national stop smoking initiatives and other related national initiatives (for example, dental health campaigns).
- Ensure services are part of a wider approach to addressing the health needs facing South Asian communities. They should be planned in partnership with relevant local voluntary and community organisations and user groups, and in consultation with local South Asian communities (see [recommendation 2](#)).
- Ensure services take into account the fact that some people who use smokeless tobacco products also smoke tobacco.
- Ensure services take into account the needs of people:
  - from different local South Asian communities (for example, by using staff with appropriate language skills or translators, or by providing translated materials or resources in a non-written format)
  - who may be particularly concerned about confidentiality
  - who may not realise smokeless tobacco is harmful
  - who may not know help is available
  - who may find it difficult to use existing local services because of their social circumstances, gender, language, culture or lifestyle.
- Regularly monitor and evaluate all local smokeless tobacco cessation services (and activities to promote them). Ensure they are effective and acceptable to service users. Where necessary, adjust services to meet local need more effectively. The following outcomes should be reported:

- number of quit attempts
- percentage of successful quit attempts at 4 weeks
- percentage of quit attempts leading to an adverse or unintended consequence (such as someone switching to, or increasing, their use of smoked tobacco or areca nut-only products).

### *Recommendation 4 Providing brief advice and referral: dentists, GPs, pharmacists and other health professionals*

#### **Who should take action?**

- Primary and secondary dental care teams (for example, dentists, dental nurses and dental hygienists).
- Primary and secondary healthcare teams (for example, GPs and nurses working in GP practices).
- Health professionals working in the community, including community pharmacists, midwives and health visitors.

#### **What action should they take?**

- Ask people if they use smokeless tobacco, using the names that the various products are known by locally. If necessary, show them a picture of what the products look like, using visual aids. (This may be necessary if the person does not speak English well or does not understand the terms being used.) Record the outcome in the patient notes.
- If someone uses smokeless tobacco, ensure they are aware of the health risks (for example, the risk of cardiovascular disease, oropharyngeal cancers and periodontal disease). Use a brief intervention to advise them to stop.
- In addition to delivering a brief intervention, refer people who want to quit to local specialist tobacco cessation services (see NICE guidance on [smoking cessation services](#)). This includes services specifically for South Asian groups, where they are available.
- Record the response to any attempts to encourage or help them to stop using smokeless tobacco in the patient notes (as well as recording whether they smoke).

See also NICE guidance on [brief interventions and referral for smoking cessation](#) and [smoking cessation services](#) for more information.

## ***Recommendation 5 Specialist tobacco cessation services in areas of identified need***

### **Who should take action?**

Providers of tobacco cessation services. This may include those working in general practice, dental practices and pharmacies.

### **What action should they take?**

As part of a comprehensive specialist tobacco cessation service ensure:

- Staff provide advice to people who use smokeless tobacco (or recommend that they get advice to help them quit).
- Staff know the local names to use when referring to smokeless tobacco products (see [recommendation 1](#)).
- Staff can advise people on how to cope with the potential adverse effects of quitting smokeless tobacco. This includes, for example, knowing how to refer people for help to cope with oral pain, as well as general support to cope with withdrawal symptoms.
- Staff offer people who use smokeless tobacco help to prevent a relapse following a quit attempt. If possible, they should also validate the quit attempt by using a cotinine test (saliva examination) and monitor for any possible increase in tobacco smoking or use of areca nut.
- Services reach people who may not realise smokeless tobacco is harmful, or who may not know that help is available should they need it.
- Services reach people who may find it difficult to use existing local services because of their social circumstances, gender, language, culture or lifestyle. For example, a home outreach service might be considered for older people or women from South Asian groups.
- Staff check whether smokeless tobacco users also smoke tobacco and, if that is the case, provide help to quit them both.

See also NICE guidance on [brief interventions and referral for smoking cessation](#) and [smoking cessation services](#) for more information.

## *Recommendation 6 Training for practitioners in areas of identified need*

### Who should take action?

- Commissioners of health and dental services.
- Commissioners of health education and training services.

### What action should they take?

- Ensure training for health, dental health and allied professionals (for example, community pharmacists) covers:
  - the fact that smokeless tobacco may be used locally – and the need to keep abreast of statistics on local prevalence
  - the reasons why, and how, members of the South Asian community use smokeless tobacco (including the cultural context for its use)
  - the health risks associated with smokeless tobacco
  - the fact that some people of South Asian origin may be less used to a 'preventive' approach to health than the general population
  - the local names used for smokeless tobacco products, while emphasising the need to use the term 'smokeless tobacco' as well when talking to users about them (see [recommendation 1](#)).
- Training should also ensure practitioners:
  - can recognise the signs of smokeless tobacco use
  - know how to ask someone, in a sensitive and culturally aware manner, if they use smokeless tobacco
  - can provide information in a culturally sensitive way on the harm smokeless tobacco causes. (This includes being able to challenge any perceived benefits – and the relative priority that users may place on these benefits)
  - can deliver a brief intervention and refer people to tobacco cessation services if they want to quit.

<sup>[3]</sup> Smokeless tobacco products are required to carry the warning: 'This tobacco product can damage your health and is addictive' on the most visible surface of the packet. Refer to the Local Government Association's [Niche Tobacco Products Directory](#) website for further details.

## 2 Public health need and practice

Many people in England of South Asian origin use a number of different types of smokeless tobacco products. Typically, these products also tend to contain other unhealthy ingredients such as areca nuts, slaked lime, flavourings and sweeteners.

The products are associated with a number of health problems including:

- nicotine addiction
- mouth and oropharyngeal cancer
- dental disease
- cardiovascular disease
- problems in pregnancy and following childbirth (including fetal anaemia, placental pathology, stillbirth, pre-term birth, and low birthweight)
- late diagnosis of dental problems (because the smokeless tobacco product helps mask the pain).

(Boffetta and Straif 2009; England et al. 2010; Gupta and Subramoney 2004; Pau et al. 2003; Quandt et al. 2005; West et al. 2004.)

There has been a steady increase in oral cancer rates in the UK since 1989 (Cancer Research UK 2010). Exactly how smokeless tobacco is linked to this increase is unknown. However, South Asian women (some of the main users of these products in the UK) are 3.7 times more likely to have oral cancer and 2.1 times more likely to have pharyngeal cancer compared with other women. This is the case, even after controlling for the effect of socioeconomic deprivation (Moles et al. 2008).

Areca nut, which is often mixed in with South Asian varieties of smokeless tobacco, is also likely to be linked to the prevalence of oral cancer among this group. Areca is a mildly euphoric stimulant. It is addictive and carcinogenic in its own right – and is widely used among South Asian groups (Auluck et al. 2009; Warnakulasuriya 2002).

Survey results (Moles et al. 2008; Prabhu et al. 2001; The NHS Information Centre 2006) suggest that the following South Asian subgroups are more likely to use smokeless tobacco:

- women

- people of Bangladeshi origin
- those in older age groups
- those from lower socioeconomic groups.

First generation South Asian migrants, in particular, those who are less integrated within the wider community, may also be more predisposed to using these products (Prabhu et al. 2001). In addition, South Asian users of these products may be less likely to visit the dentist on a regular basis (Pearson et al 1999).

Smokeless tobacco products are readily available in shops in areas of England where there are large South Asian communities. Around 85% of the products are sold without any regulatory health warning. Generally, they are cheap compared to cigarettes (Longman et al. 2010).

Estimates vary on the prevalence of smokeless tobacco use among South Asian communities. The NHS Information Centre (2006) confirmed that Bangladeshis were the biggest users among this community in 2004, with 9% of men and 16% of women saying that they used these products. However, in some localities the prevalence may be higher. For example, another study, based on saliva analysis and questionnaires, reported that 49% of adult Bangladeshi women in Tower Hamlets used these products (Croucher et al. 2002).

One report suggests that smokeless tobacco use fell among the Bangladeshi community between 1999 and 2004 (The NHS Information Centre 2006). However, other sources appear to indicate a rise in use.

First, the number of outlets selling such products appears to be growing (Croucher et al. 2009). Second, over the last 11 years there has been a rise in legal imports of smokeless tobacco, even when the calculation is derived from the balance of imports over exports (HM Revenue & Customs 2011). Third, a recent rise in illegal imports has also been reported (HM Revenue & Customs and UK Border Agency 2008). Finally, there are also claims that the packaging of these products appears to be targeted at younger people (Panesar et al. 2008).

There is no information on current NHS smokeless tobacco cessation initiatives. A 2003 review listed 17 local services in England that claimed to focus on smokeless tobacco – and many South Asians were using such services (Crosier and McNeill 2003). Within mainstream NHS services there may be a general lack of awareness of the problem – and a lack of incentives within the system to address smokeless tobacco.

### 3 Considerations

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

#### *Background*

- 3.1 PHIAC noted that there is limited evidence on the prevalence and severity of smokeless tobacco use among South Asians in England. PHIAC was also aware that usage patterns vary greatly from area to area, both demographically and in terms of the products themselves (although in many areas, use is often high among older Bangladeshi women). The Committee noted that these factors will present a challenge when planning services.
- 3.2 PHIAC noted that smokeless tobacco use is an emerging public health issue. However, there is a lack of awareness of the problem, both among the public and professionals. The Committee noted that it would take a concerted effort to increase the provision and consistency of smokeless tobacco cessation services across England to the optimum level.
- 3.3 PHIAC noted that cessation interventions should fit well into an holistic model of care for people for whom the health hazards of using smokeless tobacco might be a minor concern compared with the other health and social problems they may face.
- 3.4 PHIAC noted the importance of using existing NICE guidance on [behaviour change: the principles for effective interventions, identifying and supporting people most at risk of dying prematurely](#) and [community engagement](#) when developing interventions to help people from South Asian communities to stop using smokeless tobacco.
- 3.5 Members of PHIAC were aware that smokeless tobacco use may be high among some groups of young South Asians, although there is a lack of recent, high quality research on this. As with smoking, they also recognised that children and young people may experiment with smokeless tobacco before becoming regular users. As a result, although the guidance focuses on cessation, in practice the boundary between prevention and cessation work may be blurred.

## *Barriers to service provision*

- 3.6 Apart from being physically addictive, smokeless tobacco products are, to a large extent, tied into the culture and traditions of some South Asian communities. Offering someone such a product can be a polite social ritual. When the tobacco mixture contains areca nut, its use can also have religious significance (areca nut is considered sacred in a number of cultures). In some cases, smokeless tobacco is part of someone's cultural identity and the upheaval of migration can create a particularly strong attachment to it.
- 3.7 PHIAC noted that some people who have migrated to the UK may feel uneasy about certain aspects of Western medical practice, including the idea that an apparently healthy person should seek preventive healthcare services.
- 3.8 Many people who use smokeless tobacco believe that these products can help ease indigestion. Sometimes they are used because people believe it gives them fresh breath or increases their attractiveness. The products may also be taken to ease oral pain, although this can be self-perpetuating, because masking the pain may prolong or exacerbate the underlying problem. Indeed, a former smokeless tobacco user could relapse due to the dental pain they experience when quitting. PHIAC considered that a referral to a medical or dental professional may reduce the likelihood of this happening. For example, they could provide more appropriate pain relief or deal with the actual cause (for example, it may be caused by periodontal disease, pulpitis or caries).
- 3.9 People may not always be aware that the products they are using contain tobacco. Some may not recognise a general term like 'smokeless tobacco'. (Often they are much more familiar with the names of the individual varieties, such as paan or gutkha.)
- 3.10 PHIAC was aware of the wide availability of smokeless tobacco from retailers within areas where many South Asian communities live. It was also aware of how relatively cheap these products are compared to cigarettes. However, issues of availability and regulation were outside the scope of this guidance.
- 3.11 In addition to oral pain (see consideration 3.8), PHIAC noted other possible adverse effects of cessation initiatives. In particular, it noted that giving up smokeless tobacco could lead someone to turn to, or smoke more, cigarettes, or

switch to smokeless products that do not contain tobacco but still contain areca nut.

- 3.12 Practitioners, including doctors, dentists, nurses, midwives and health visitors, are often not well-informed about smokeless tobacco products and the harm they can cause.
- 3.13 There are few, if any, incentives for health professionals to ask people about, and record information on, smokeless tobacco use. This makes it difficult for local commissioners to gauge the prevalence of the habit locally. It also makes it difficult for them to judge whether or not local tobacco cessation services are proving successful.

### *Evidence of effectiveness*

- 3.14 PHIAC noted the lack of high quality randomised controlled trials (RCTs) on tobacco cessation interventions aimed at South Asian communities and involving South Asian varieties of smokeless tobacco. There is also a lack of trials with a relatively long outcome measurement. The standard NHS cessation metric is cessation at 4 weeks, which is a useful standard measure, but too early to be regarded as a proper quit attempt for the purposes of research. Measuring cessation rates at 6 or 12 months might be more appropriate.
- 3.15 In 2004, UK guidelines on helping people to quit smokeless tobacco were produced (West et al. 2004). Although they do not have any statutory status, the guidelines were endorsed by a number of professional groups and health advocacy organisations. They have an implicit focus on South Asians because they are the main users of smokeless tobacco in the UK. The recommendations were based on high-quality controlled studies mainly related to non-South Asian populations who were using non-South Asian forms of smokeless tobacco. The cessation studies mainly involved the use of nicotine replacement therapy (NRT) and counselling. West et al. (2004) appeared to assume that it was reasonable to transfer these findings to South Asian populations, and to the varieties of smokeless tobacco typically used by these populations. Their recommendations were made on this basis (although, ultimately, they concluded that there was a lack of evidence for NRT). PHIAC discussed the transferability of this evidence. It concluded that, in some cases, the interventions may be effective with other smokeless tobacco users, in other contexts. However, it also

noted that the evidence of effectiveness was generally weak. PHIAC took these considerations into account and was also mindful of the general principles of [behaviour change](#) (see consideration 3.4).

3.16 PHIAC considered the evidence for treatment using pharmacotherapy and, in particular, the use of NRT. The Committee noted that the Cochrane review evidence (Ebbert et al. 2011) on the use of NRT for smokeless tobacco cessation is equivocal. It also noted that this evidence:

- relates to a different type of smokeless tobacco – and populations other than South Asians living in England
- only studied the effect of one NRT product at a time (when in practice, someone trying to quit may be using more than one)
- covered non-UK study participants who were often unable to make use of the additional behavioural support that is commonly available in England.

Although there is some evidence to suggest that NRT can help South Asian users of smokeless tobacco in England to quit (Croucher et al. 2003), this comes from non-randomised trials with limited follow-up. PHIAC was also aware that NRT is not licensed as a treatment for smokeless tobacco use, although it is on general sale. It also noted that clinicians can use their judgement to prescribe or recommend it.

3.17 PHIAC considered that there might be a particular role for NRT in helping people who smoke and use smokeless tobacco.

3.18 PHIAC noted that research explicitly focused on South Asian users provided an insight into the cultural reasons why South Asians may use smokeless tobacco.

## *Health economics*

3.19 PHIAC noted that brief advice and tailored, targeted services are a highly cost effective way of helping people to quit smoking. See NICE guidance on [brief interventions and referral for smoking cessation](#); [workplace interventions to promote smoking cessation](#); [smoking cessation services](#) and [identifying and supporting people most at risk of dying prematurely](#).

- 3.20 A threshold analysis estimated that the maximum cost per quitter for a smokeless tobacco intervention to be 'cost effective' depended on someone's age and gender. For someone aged between 20 and 70 years, the cost per quitter ranged from £1758 to £3525 for males, and from £1328 to £2520 for females (when the quality-adjusted life year [QALY] threshold was set at £20,000). At a QALY threshold of £30,000, the cost ranged from £2408 to £4991 for males and from £1795 to £3549 for females.
- 3.21 The threshold analysis estimates (see above) need to be treated with caution due to the severe data limitations:
- lack of evidence on effectiveness
  - lack of data on the incidence and mortality associated with the smokeless tobacco products used in England, in particular, by South Asians
  - uncertainty about the time lag between quitting and gaining health benefits – and the extent to which the damage from smokeless tobacco is irreversible.

## 4 Implementation

NICE guidance can help:

- Commissioners and providers of NHS services to meet the quality requirements of the DH's [Operating framework for 2012/13](#). It can also help them to deliver against domain one of the NHS outcomes framework (preventing people from dying prematurely).
- NHS, local authority, public health and social care services in meeting outcomes as detailed in [Improving outcomes: a strategy for cancer](#) (2011). This can be achieved by improving cancer survival rates for oral cancer through earlier detection.
- Local authorities and NHS-commissioned services to contribute to the delivery of [A smokefree future: a comprehensive tobacco control strategy for England](#) (2010) and [Healthy lives, healthy people: a tobacco control plan for England](#) (2011).
- Local health and wellbeing boards to deliver on their requirements within [Healthy lives, healthy people](#) (2010).
- Dental practitioners adopt best practice for detecting oral cancer, in line with 'Early detection and prevention of oral cancer: a management strategy for dental practice' (British Dental Association 2010). (This paper is available to members of the British Dental Association. For details, visit the [BDA website](#)).
- Local authorities, NHS services and local organisations, determine how to improve health outcomes and reduce health inequalities during the joint strategic needs assessment process.
- Local NHS organisations, local authorities and other local partners benefit from any identified cost savings, disinvestment opportunities or opportunities for re-directing resources. This is in line with initiatives such as the quality, innovation, productivity and prevention (QIPP) challenge.

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

## 5 Recommendations for research

The Public Health Interventions Advisory Committee (PHIAC) recommends that the following research questions should be addressed. 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.

- 5.1 What is the natural progression of disease for South Asian users of smokeless tobacco (for example, how prevalent is oropharyngeal cancer and periodontal disease among users)?
- 5.2 How prevalent is smokeless tobacco use among South Asian women who are pregnant and why? Is there a particular stage during pregnancy when smokeless tobacco is used? What impact does its use during pregnancy have on maternal and child health?
- 5.3 What are the similarities and differences between smokeless tobacco and smoked tobacco in terms of chemical content and the harm that it can cause? Should interventions to help people quit smokeless tobacco differ from those used for smoked tobacco?
- 5.4 How effective and cost effective are the following in terms of long-term (12 month) quit rates, and also for NHS standard, short-term quit rates (at 4 weeks and 6 months) for smokeless tobacco (confirmed by saliva cotinine test)?
  - 5.4.1 Pharmacotherapy combined with behavioural support and delivered by health professionals compared to brief advice, behavioural support or pharmacotherapy alone.
  - 5.4.2 Brief interventions (including brief advice) delivered by community members compared to brief interventions delivered by health professionals.
  - 5.4.3 Tobacco cessation services (including outreach services) that specifically focus on smokeless tobacco, compared to smokeless tobacco support provided by general tobacco cessation services.

- 5.4.4 Training for health professionals (such as midwives, dentists and dental hygienists) to identify users of smokeless tobacco and raise awareness among them of the associated health risks.
- 5.4.5 How does the effectiveness and cost effectiveness of the above differ by: age, gender and ethnic origin of the recipient; the status of the person delivering the intervention; the way it is delivered; its frequency, length and duration; and the setting in which it is delivered?
- 5.5 Are there unintended consequences from encouraging people of South Asian origin to stop using smokeless tobacco (for example, do they experience more dental pain or start smoking more tobacco)?
- 5.6 How strong are the cultural motivations (stemming from religion, tradition, media, and advertising) to use smokeless tobacco among people of South Asian origin? How do they compare with the physical addiction to nicotine? How might this information help in designing smokeless tobacco cessation programmes that are culturally appropriate?
- 5.7 What components of an intervention or which general approaches work best in attracting people of South Asian origin to smokeless tobacco cessation services? How does this differ by age, gender and ethnic origin?

More detail on the gaps in the evidence identified during development of this guidance is provided in [appendix D](#).

## 6 Updating the recommendations

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

## 7 Related NICE guidance

### *Published*

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

Prevention of cardiovascular disease. NICE public health guidance 25 (2010).

School-based interventions to prevent smoking. NICE public health guidance 23 (2010).

Identifying and supporting people most at risk of dying prematurely. NICE public health guidance 15 (2008).

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

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

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

Smoking cessation – varenicline. NICE technology appraisal 123 (2007).

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

Head and neck. NICE cancer service guidance (2004).

### *Under development*

Smoking harm reduction. NICE public health guidance (publication expected May 2013).

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

Smoking cessation: mental health services. NICE public health guidance (publication expected October 2013).

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Prabhu NT, Warnakulasuriya K, Gelbier S et al. (2001) Betel quid chewing among Bangladeshi adolescents living in east London. *International Journal of Paediatric Dentistry* 11 (1): 18–24

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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.

**Mr John F Barker**

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**Professor K K Cheng**

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**Mr David McDaid**

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**Sue Jelley**

Senior Editor

**Alison Lake**

Editor

## *External contractors*

### **Evidence reviews**

Review 1 was carried out by The School of Health and Related Research (ScHARR), University of Sheffield. The principal authors were: Josie Messina, Crystal Freeman, Angie Rees, Ben van Hout, Elizabeth Goyder and Silvia Hummel.

Review 2 was carried out by ScHARR, University of Sheffield. The principal authors were: Josie Messina, Crystal Freeman, Angie Rees, Ben van Hout, Elizabeth Goyder and Silvia Hummel.

Note: the 2 reviews are presented as 1 report (see [appendix E](#)).

### **Cost effectiveness**

The economic modelling was carried out by ScHARR, University of Sheffield. The principal authors were: Ben van Hout, Silvia Hummel, Crystal Freeman, Josie Messina, Angie Rees and Elizabeth Goyder.

### **Fieldwork**

The fieldwork was carried out by GHK Consulting Ltd. The principal authors were: Dr Nahid Ahmad and Oliver Jackson.

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

### *Introduction*

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

The minutes of the Public Health Interventions Advisory Committee (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 on the [NICE website](#).

### *Guidance development*

The stages involved in developing public health intervention guidance are outlined 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 reviews and economic modelling undertaken and submitted to PHIAC
6. PHIAC produces draft recommendations
7. Draft guidance (and evidence) released for consultation and for field testing
8. PHIAC amends recommendations
9. Final guidance published on website
10. 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 PHAC to help develop the recommendations. The overarching questions were:

- Which interventions, or combination of interventions, are effective and cost effective in helping South Asian people to stop using smokeless tobacco in England?
- How should interventions be targeted and tailored for the different subcategories of users within the South Asian community (grouped, for example, by gender, age, religion, socioeconomic status or by country of origin)?
- What opinions, attitudes or cultural practices encourage (or predispose) South Asian people in England to use smokeless tobacco? Do these factors also determine the particular varieties used?
- Are health professionals aware of the widespread use of smokeless tobacco among South Asian communities and its dangers? Does lack of awareness mean that people are not being referred for, or receiving, support to stop using these products, or that support services are not being commissioned?

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

## *Reviewing the evidence*

### **Effectiveness and contextual reviews**

Two reviews were conducted.

- Review 1 (effectiveness review) examined the effect of interventions designed to help South Asians stop using smokeless tobacco.
- Review 2 (contextual review) examined both the contextual factors associated with smokeless tobacco use among South Asians, and health practitioners' views.

The methodology used in both reviews had some elements in common (see below) and the 2 reviews are presented in one report. (The report is entitled 'Systematic review of effectiveness of smokeless tobacco interventions for South Asians and a review of contextual factors relating to smokeless tobacco use among South Asian users and the views of healthcare providers'.)

## ***Identifying the evidence***

A number of databases were searched in July and August 2011 for any kind of evidence published from 1990 onwards. (See the report for details of the databases searched.)

In addition, the following searches were carried out:

- Reference list check of included papers.
- Cited reference search for papers included in the Web of Science database.
- Search of 'grey' literature sources in Open Grey and Health Management Information Consortium (HMIC) databases.

## ***Selection criteria***

The effectiveness review (review 1) included studies from any country on interventions to help South Asians stop using smokeless tobacco, as follows:

- Pharmacological interventions for individuals or groups to help them stop using smokeless tobacco.
- Behavioural support or counselling for individuals or groups to help them stop using smokeless tobacco.
- Brief interventions (including brief advice) by health and social care professionals, including dental practitioners and GPs or community members and peers.
- Local, community-based initiatives to raise awareness of the harm caused by smokeless tobacco and to encourage the uptake of cessation services by people who use it.
- Interventions, including those based in schools and the community, to raise awareness and knowledge among health and social care professionals about smokeless tobacco use.
- Interventions that were part of: randomised controlled trials (RCT), non-randomised studies, quasi-experimental, controlled before-and-after studies, process evaluations or qualitative studies.

Studies were excluded from review 1 if they:

- did not cover South Asian populations

- were non-interventional (that is, no intervention was offered).

Review 2 (contextual review) included studies from Organisation for Economic Cooperation and Development (OECD) countries if they were about South Asian people who were current or past users of smokeless tobacco and covered:

- Clinicians, support workers, and frontline staff who have worked with South Asian populations on smokeless tobacco use.
- Views of people who are of South Asian origin who are seeking help to stop using smokeless tobacco.
- Views of friends and family members who know someone who uses smokeless tobacco.
- Knowledge, attitudes or views of clinicians, support workers and frontline health staff towards smokeless tobacco and/or smokeless tobacco interventions.
- Cross-sectional studies that examine smokeless tobacco prevention and use among South Asians.
- Qualitative studies of the views and use of smokeless tobacco among South Asians.
- Reports and project briefs on smokeless tobacco.

Studies were excluded from review 2 if they covered:

- people who were not of South Asian descent
- providers of smokeless tobacco
- non-peer reviewed evidence from websites or blogs or anecdotal evidence on smokeless tobacco.

As noted previously (in 3.5 of the [considerations section](#)), the distinction between smokeless tobacco prevention and cessation can be blurred for younger people. For this reason, the reviews included the 'Mobilizing youth for tobacco – related initiatives in India' (MYTRI) project. However, programmes solely focused on prevention were not reviewed.

## Quality appraisal

Included papers were assessed for methodological rigour and quality using the appropriate 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 checklist criteria have been fulfilled. Where they have not been fulfilled, the conclusions are very unlikely to alter.

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

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

The evidence was also assessed for its applicability to the areas (populations, settings, interventions) covered by the scope of the guidance. Each evidence statement concludes with a statement of applicability (directly applicable, partially applicable, not applicable).

### **Summarising the evidence and making evidence statements**

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

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

### ***Cost effectiveness***

There was a review of economic evaluations and an economic modelling exercise.

### **Review of economic evaluations**

Searches for the cost-effectiveness/economics review were undertaken at the same time as the effectiveness searches, using the term 'South Asian smokeless tobacco users'. The searches were carried out in NHS EED (economic evaluation database) via Wiley and Econ Lit via OVID SP. No relevant studies were found.

## Economic modelling

An economic model was constructed to incorporate data from the review of effectiveness (review 1).

The model covered four diseases: cardiovascular disease, oral cancer, pancreatic cancer and periodontal disease. Where additional information requirements were identified, targeted searches were undertaken.

The results are reported in 'Costs and effects of strategies to support quitting the use of smokeless tobacco'. It is available on [NICE's website](#).

## 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 public health managers, commissioners and practitioners who are involved in oral health and tobacco cessation services and those who work with South Asian communities living in England. They included: smoking cessation advisers, dentists, pharmacists and representatives from local authorities, trading standards, the voluntary sector, faith organisations and patients.

The fieldwork comprised:

- Six focus groups involving a total of 47 participants. The groups met in Birmingham, Bradford, Leicester, London (Tower Hamlets), Luton and Manchester.
- Telephone interviews with 12 participants.
- Online survey completed by 14 practitioners.

The locations of the focus groups were selected to ensure a regional spread and to target areas with large South Asian populations. The main issues arising from the fieldwork are set out in Fieldwork findings. See also, 'Helping people of South Asian origin to stop using smokeless tobacco: fieldwork report'.

## *How PHIAC formulated the recommendations*

At its meeting in December 2011, the Public Health Interventions Advisory Committee (PHIAC) considered the evidence and cost effectiveness to determine:

- whether there was sufficient evidence (in terms of strength and applicability) to form a judgement
- where relevant, whether (on balance) the evidence demonstrates that the intervention or programme/activity can be effective or is inconclusive
- where relevant, the typical size of effect (where there is one)
- whether the evidence is applicable to the target groups and context covered by the guidance.

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

- Strength (type, quality, quantity and consistency) of the evidence.
- The applicability of the evidence 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.
- Equality and diversity legislation.
- Ethical issues and social value judgements.
- Cost effectiveness (for the NHS and other public sector organisations).
- Balance of harms 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 February 2012. At its meeting in May 2012, PHIAC amended the guidance in light of comments from

stakeholders and experts and the fieldwork. The guidance was signed off by the NICE Guidance Executive in July 2012.

## Appendix C The evidence

### *Introduction*

This appendix lists the evidence statements from 2 reviews which were combined into 1 report and provided by an external contractor (see appendix [A](#) and appendix [E](#)). It links them to the relevant recommendations. See appendix [B](#) for the meaning of the (++) , (+) and (-) quality assessments referred to in the evidence statements.

This appendix also sets out a brief summary of findings from the economic analysis.

The evidence statements are short summaries of evidence in a review.

**Evidence statement number 1** indicates that the linked statement is numbered 1 in the review 'Systematic review of effectiveness of smokeless tobacco interventions for South Asians and a review of contextual factors relating to smokeless tobacco use among South Asian users and the views of healthcare providers'.

The review and economic analysis are available at 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).

Where the Public Health Interventions Advisory Committee (PHIAC) has considered other evidence, it is linked to the appropriate recommendation below. It is also listed in the additional evidence section of this appendix.

**Recommendation 1:** Evidence statements 32, 34, 35.

**Recommendation 2:** Evidence statements 16, 17, 18.

**Recommendation 3:** IDE

**Recommendation 4:** Additional evidence (West et al. 2004).

**Recommendation 5:** Evidence statements 2, 3, 5, 33, 34, 42.

**Recommendation 6:** Evidence statements 27, 43, 44.

## ***Evidence statements***

Please note that the wording of some evidence statements has been altered slightly from those in the evidence reviews to make them more consistent with each other and NICE's standard house style. The superscript numbers refer to the studies cited beneath each statement. The full references for those studies can be found in the reviews.

### **Evidence statement 2 Behavioural support – counselling alone**

#### ***Brief advice and encouragement***

There was moderate evidence from one (+) UK quasi-experimental study<sup>1</sup> that brief advice and encouragement can have a positive effect on quitting tobacco among South Asians. Findings showed that of those who completed the 4-week Bangladeshi Stop Tobacco Project (BSTP) and reported successfully quitting tobacco, 17% used brief advice and encouragement without nicotine replacement therapy (NRT) as their method of cessation. This evidence is applicable to a UK setting as this study was conducted in the UK.

#### ***Focus group discussions***

There was weak evidence from one (-) Indian interventional cohort study<sup>2</sup> that focus group discussion sessions had a positive effect on self-reported tobacco quit rates in South Asians. Quit rates following the first, second, third, fourth, fifth and sixth focus group sessions of the World No Tobacco Day (WNTD) cessation programme were 30%, 44%, 48%, 46%, 46% and 48% respectively – with an overall quit rate of 40% at the end of the study. This evidence is partially applicable to people of South Asian origin living in the UK who may have maintained cultural and social practices related to smokeless tobacco use.

<sup>1</sup> Croucher et al. 2003a

<sup>2</sup> Mishra et al. 2009

### **Evidence statement 3 Behavioural support – counselling and pharmacotherapy**

There was moderate evidence from one (+) UK quasi-experimental study<sup>1</sup>, one (+) UK retrospective review of client records<sup>2</sup> and one (-) Indian interventional cohort study<sup>3</sup> that behavioural support and pharmacotherapy in combination can have a positive effect on stopping tobacco use among South Asians. One (+) study<sup>2</sup> found that use of NRT with behavioural support was an independent predictor of a successful cessation attempt (odds ratio [OR] = 5.38, 95% confidence interval [CI]

2.71, 10.70), while another (+) study<sup>1</sup> found that at the end of the 4-week BSTP cessation programme, 19.5% of completers had stopped tobacco use – of which 22% had received NRT in addition to behavioural support. Furthermore, BSTP clients who chose the addition of NRT made a significantly greater reduction in their salivary cotinine scores at final review compared to baseline.

In the (-) study of the WNTD cessation programme<sup>3</sup>, five tobacco users were offered pharmacotherapy. One employee quit tobacco while two employees did not comply with the pharmacotherapy because of side effects following the use of bupropion. The overall quit rate among the pharmacotherapy and behavioural support group was 20%. This evidence is partially applicable to UK settings and to people of South Asian origin living in the UK who may have maintained cultural and social practices related to smokeless tobacco use.

<sup>1</sup> Croucher et al. 2003a

<sup>2</sup> Croucher et al. 2011c

<sup>3</sup> Mishra et al. 2009

## Evidence statement 5 Adverse events and withdrawal symptoms

There is moderate evidence from one (+) UK quasi-experimental study<sup>1</sup>, one (+) UK pilot study<sup>2</sup>, one (-) UK progress review study<sup>3</sup> and one (-) Indian interventional cohort study<sup>4</sup> that adverse events and withdrawal symptoms can affect quit success among South Asians. Interim results from a study of the BSTP<sup>3</sup> reported that clients who experienced a lower mean number of withdrawal symptoms or lower mean number of adverse events at first follow-up at 2 weeks were more likely to make a successful quit attempt. Another (+) study<sup>2</sup> found that BSTP clients with fewer withdrawal symptoms at first follow-up was significantly associated with a successful quit attempt ( $p = 0.005$ ). Fewer NRT-related adverse events at first follow-up were also significantly associated with a successful quit attempt ( $p = 0.028$ ) while those reporting oral pain and discomfort at first follow-up were less likely to make a successful quit attempt ( $p = 0.034$ ). One (+) study<sup>1</sup> found that oral pain was reported as a barrier to successful oral tobacco cessation by 62% of the volunteers at final review.

The (-) study<sup>4</sup> of the WNTD programme showed that employees who relapsed after initial quitting stated physical discomfort like constipation as a reason for relapse and not achieving successful cessation. This evidence is partially applicable to UK settings and to people of South Asian origin living in the UK who may have maintained cultural and social practices related to smokeless tobacco use.

<sup>1</sup> Croucher et al. 2003a

<sup>2</sup> Croucher et al. 2011b

<sup>3</sup> Croucher et al. 2011a

<sup>4</sup> Mishra et al. 2009

### **Evidence statement 16 Local community-based initiatives to raise awareness: tobacco use prevalence rates**

There is moderate evidence from one (+) Indian randomised controlled trial (RCT)<sup>1</sup> that showed tobacco education interventions which raise awareness about the harmful effects of tobacco can have a positive effect on prevalence rates of tobacco use among South Asians. Post-intervention, results from the Anti-Tobacco Community Education Program (ATCEP) showed a decline in rates from baseline to final assessment at 3 years – with a 10.2% decrease for males in the experimental area compared to 2.1% and 0.5% decrease in the control areas ( $p < 0.0001$ ). For females, there was a 16.3% reduction in the experimental area compared to 2.9% and 0.6% in the control areas ( $p < 0.0001$ ). Post-intervention, there was a 5.6% reduction in the percentage of males who reported tobacco chewing compared to 1.2% and 0% reduction in the control areas ( $p < 0.0001$ ). This evidence is partially applicable to people of South Asian origin living in the UK who may have maintained cultural and social practices related to smokeless tobacco use.

<sup>1</sup> Anantha et al. 1995

### **Evidence statement 17 Local community-based initiatives to raise awareness: initiation rates of tobacco use**

There is mixed evidence from one (+) Indian RCT<sup>1</sup> that showed tobacco education interventions which raise awareness about the harmful effects of tobacco can have a positive effect on decreasing initiation rates of tobacco use among South Asians. Baseline initiation rates of tobacco use from the ATCEP showed that male rates were comparable between the experimental and control areas. However, the rate among females was different. Initiation rates of tobacco use in the experimental area showed a statistically significant decline in males ( $p < 0.01$ ) and females ( $p = 0.005$ ) between the baseline and the first follow-up surveys at 2 years. At the final 3-year assessment, males in the first control area did not show a statistically significant decline in the initiation rate ( $p = 0.16$ ). At the final 3-year assessment, the initiation rate of chewing among males was 0.2% and that of smoking 0.1% in the experimental area. In control area one, the initiation rate of chewing was 0.1% compared with 0.3% for smoking. In control area two, the initiation rates were

0.4% and 0.9% for chewing and smoking respectively. This evidence is partially applicable to people of South Asian ancestry living in the UK who may have maintained cultural and social practices related to smokeless tobacco use.

<sup>1</sup> Anantha et al. 1995

### **Evidence statement 18 Local community-based initiatives to raise awareness: quit rates**

There is mixed evidence from one (+) Indian RCT<sup>1</sup> that showed tobacco education interventions which raise awareness about the harmful effects of tobacco can have a positive effect on increasing quit rates of tobacco use among South Asians. Results from the ATCEP indicated that the numbers and rates of persons who had quit using tobacco at the time of first repeat survey at 2 years was much higher in the experimental area compared with the control areas (in males, 26.5% in the experimental area versus 3.2% and 1.1% in control areas one and two, respectively; and in females, 40.7% in the experimental area versus 2.4% and 0.2% in control areas one and two, respectively). By the end of follow-up at 3 years, results from the experimental area showed a decrease in quitters by 4.0% in females and no change in the rate for males. The quit rate among male chewers also showed a decrease over time as well – with the percentage of quitters declining from 32.0% to 30.2% between the first follow-up survey at 2 years and the final survey at 3 years. This evidence is partially applicable to people of South Asian origin living in the UK who may have maintained cultural and social practices related to smokeless tobacco use.

<sup>1</sup> Anantha et al. 1995

### **Evidence statement 27 Deliverers of intervention components**

There is moderate evidence from one (+) Indian cluster RCT<sup>1</sup> study that showed tobacco preventive interventions delivered by teachers and peers can have a positive effect on intervention outcomes. A process evaluation of project 'Mobilizing youth for tobacco-related initiatives in India' (MYTRI) found that the proportion of teachers trained in a school correlated with better implementation of objectives ( $r = 0.58$ ,  $p < 0.02$ ) and superior communication between peer leaders and students ( $r = 0.75$ ,  $p < 0.001$ ). It was also of greater benefit in lowering the susceptibility to chewing tobacco ( $r = 0.53$ ,  $p < 0.05$ ). Furthermore, the communication between students and peer leaders ( $r = 0.66$ ,  $p < 0.005$ ) and higher proportion of students participating in the classroom discussions ( $r = 0.70$ ,  $p < 0.005$ ) correlated with better outcomes. Schools with a higher proportion of teachers trained also had better communication between the students and peer leaders. This evidence is partially applicable to people of South Asian origin living in the UK who may have maintained cultural and social practices related to smokeless tobacco use.

<sup>1</sup> Goenka et al. 2010

### Evidence statement 32 Characteristics of users

Moderate evidence from eight UK studies including two reports (both [+])<sup>1,2</sup> and six cross sectional surveys (four [+])<sup>3,4,5,6</sup>; (two [++])<sup>7,8</sup> reported on how many respondents used smokeless tobacco. One (+) study<sup>2</sup> showed that 8% of the South Asians in Leicester used smokeless tobacco products. Another (++) study<sup>8</sup> found that 30% of Bangladeshi men within Tower Hamlets were users of smokeless tobacco. Another (+) study<sup>6</sup> showed that betel-quid use was highest in Hindus from Leicester (21%) followed by 5% of Muslims and Jains. In a (+) Bangladeshi sample from Tower Hamlets<sup>5</sup>, 78% chewed paan, with 52% adding tobacco. In another (++) study in Tower Hamlets<sup>7</sup> half (49%) of female Bangladeshis used smokeless tobacco. A separate (+) Tower Hamlet study<sup>3</sup> reported betel quid chewing was over 80% with no gender difference, and tobacco was added to paan by more women (43%, n = 32) than men (29%, n = 19) (p = 0.09). In an (+) East London study<sup>4</sup>, 28% of Bangladeshi adolescents sampled used betel quid, with 12% adding tobacco.

<sup>1</sup> HDA 2000

<sup>2</sup> Rees 2007

<sup>3</sup> Ahmed et al. 1997

<sup>4</sup> Bedi and Gilthorpe 1995

<sup>5</sup> Pearson et al. 1999

<sup>6</sup> Vora et al. 2000

<sup>7</sup> Croucher et al. 2002

<sup>8</sup> Croucher et al. 2007

### Evidence statement 33 Social acceptability

Moderate evidence from one (+) UK qualitative study<sup>1</sup> set in Tower Hamlets and two UK cross-sectional studies (both [+])<sup>2,3</sup> set in Birmingham and Tower Hamlets examined social acceptability of smokeless tobacco use among the genders. The studies found that smokeless tobacco is traditionally and culturally more appropriate for the female gender among South Asian communities. One (+) study<sup>2</sup> found that females appeared to be more accepting of their own

chewing habits, while men did not, and there was a general consensus that children should not be using betel quid.

<sup>1</sup> Croucher and Choudhury 2007

<sup>2</sup> Ahmed et al. 1997

<sup>3</sup> Bedi and Gilthorpe 1995

### Evidence statement 34 Gendered use patterns

Contradictory evidence was found regarding gendered patterned use of smokeless tobacco in four UK cross-sectional studies (all [+])<sup>1,2,3,4</sup>. In a (+) Birmingham study<sup>1</sup> there were similar levels of betel quid use for Bangladeshi men (92%) and females (96%). In a (+) study set in East London<sup>3</sup>, similar betel quid use between genders in a Bangladeshi sample was noted. In contrast, in the (+) Birmingham study<sup>1</sup> more Bangladeshi women (81%) added tobacco to their quids than men (37%). Furthermore, a (+) Tower Hamlets study<sup>2</sup> reported a greater proportion of Bangladeshi women were chewing more than men, and females were more likely to add tobacco to their paans than males ( $p < 0.01$ ). According to a (+) Yorkshire study of first generation Bangladeshi women<sup>4</sup>, paan was used by 95% (282/295) of women and 62% (174/295) of paan users added leaf tobacco.

<sup>1</sup> Bedi and Gilthorpe 1995

<sup>2</sup> Pearson et al. 1999

<sup>3</sup> Prabhu et al. 2001

<sup>4</sup> Summers et al. 1994

### Evidence statement 35 Onset of use

Moderate evidence from one (+) UK qualitative report<sup>1</sup>, and four UK cross-sectional studies (all [+])<sup>2,3,4,5</sup> investigated the age and location of onset of smokeless tobacco use. Smokeless tobacco use was more prevalent among older South Asians; however, younger UK-born South Asians are using smokeless tobacco products<sup>1</sup>. In a (+) Tower Hamlets study<sup>2</sup>, 75% of smokeless tobacco users started in Bangladesh, but 25% of both sexes started chewing paan in London and were younger (average age 34 years) than those who started in Bangladesh (average age 44 years). The mean age of onset of Bangladeshi users in Tower Hamlets was aged 20 years (range 6–56). By 17 years 50% were chewing paan, with more males commencing chewing paan by 15 years of age than females

( $p < 0.05$ )<sup>3</sup>. According to evidence from a (+) study in East London<sup>4</sup>, the median age of first chewing was as early as age 9 with most (86%) starting their chewing habits while living in London. In a (+) Yorkshire study<sup>5</sup>, 18% (51/295) were chewing by age 10 years with a mean onset of 17 years.

<sup>1</sup> HDA 2000

<sup>2</sup> Ahmed et al. 2007

<sup>3</sup> Pearson et al. 1999

<sup>4</sup> Prabhu et al. 2001

<sup>5</sup> Summers et al. 1994

## Evidence statement 42 Substitution for cigarettes

Moderate evidence from one (+) UK qualitative paper<sup>1</sup> revealed younger Bangladeshi men from Tower Hamlets may use paan as a way to obtain tobacco without smoking cigarettes, although problems of addiction to smokeless tobacco may still be present, making quitting difficult.

<sup>1</sup> Croucher and Choudhury 2007

## Evidence statement 43 Awareness and advice from dentists

Moderate evidence from two UK cross-sectional survey studies (both [+])<sup>1,2</sup> of dental professionals in the UK examined awareness and advice of dental professionals. Dentists from Harrow were almost twice as likely to neglect to offer areca cessation to patients than neglect to provide smoking tobacco cessation counselling, citing that awareness of the issues and lack of understanding of support needed was a barrier<sup>2</sup>. Of dentists that were aware of oral health impacts caused by smokeless tobacco use, half believed that it was a significant problem for their patients and this was especially true for dentists in Bradford and Kirklees than in Leeds<sup>1</sup>.

<sup>1</sup> Csikar et al. not published

<sup>2</sup> Nathan 2010

## Evidence statement 44 Barriers and support needed for practitioners

Moderate evidence from three UK cross-sectional survey studies (all [+])<sup>1,2,3</sup> examined barriers and support needed for counselling on smokeless tobacco. In a (+) survey of Yorkshire dentists<sup>1</sup>: 75% (279/372) wanted access to resources; 32% (90/372) required information on discussing smokeless tobacco; 30% (84/372) wanted waiting room resources; 22% (62/372) indicated assistance with oral cancer detection and 15% (43/372) wanted training. Another (+) study<sup>2</sup> revealed that dentists had a lack of information about counselling and did not feel equipped to help. Ethnicity of dentists plays a role in counselling as 75% of Asian/African dentists were more likely to provide support than white dentists (43%) ( $p < 0.006$ ). The (+) Tower Hamlets study<sup>3</sup> showed that language barriers between South Asian clients and practitioners exist, as 73% of first generation Bangladeshi Tower Hamlets residences experienced language issues while visiting health professionals, with more females (94%) than males (58%) experiencing this problem ( $p < 0.001$ ); resulting in only 20% registered with a dentist, and only 33% had visited a dentist in the past year, while 25% never visited a dentist.

<sup>1</sup> Csikar et al. not published

<sup>2</sup> Nathan 2010

<sup>3</sup> Pearson et al. 1999

### *Additional evidence*

West R, McNeill A, Raw M (2004) Smokeless tobacco cessation guidelines for health professionals in England. *British Dental Journal* 196 (10): 611–8.

### *Economic modelling*

The review of economic evaluations did not identify any studies of interventions to help South Asian populations in England quit using smokeless tobacco. Instead, an economic analysis was undertaken to estimate the long-term costs and effects if someone stops using these products.

Four disease models (for cardiovascular disease, oral cancer, pancreatic cancer and periodontal disease) were combined in a single framework. To estimate the costs and effects of quitting the use of smokeless tobacco, an average person was compared with someone at increased risk of these diseases due to using these products.

The results differed according to age: the older the person was, the smaller were the expected health gains and the resulting savings. The results also differed by gender, with females expected to gain more benefits for a lower cost. However, when a discount rate was applied to the cost and effects, the results changed. With discounting, the expected savings appeared greatest around the age of 50 for both males and females – and for each of the three diseases modelled.

The maximum costs per quitter for a strategy to be called 'cost effective', when using a limit of £20,000 or £30,000 per quality-adjusted life year (QALY), may depend on age and gender. For someone aged between 20 and 70 years, the cost per quitter ranged from £1758 to £3525 for males, and from £1328 to £2520 for females (when the QALY threshold was set at £20,000). At a QALY threshold of £30,000, the cost ranged from £2408 to £4991 for males and from £1795 to £3549 for females.

However, the estimates need to be treated with caution due to the severe data limitations:

- lack of published evidence on the effectiveness of interventions
- lack of data on the incidence and mortality associated with the types of smokeless tobacco used in England and, importantly, used predominantly by South Asians in England
- uncertainty about the time lag between quitting and gaining any health benefits – and the extent to which the damage from smokeless tobacco is irreversible.

## *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 'Helping people of South Asian origin to stop using smokeless tobacco: fieldwork report'.

Fieldwork participants who work with smokeless tobacco users of South Asian origin were very positive about the recommendations and their potential to help promote cessation.

Many participants stated that the guidance would be an important step towards raising the problem of smokeless tobacco use among both professionals and the wider community. Some of the recommendations were considered easy to implement, while others would face potential barriers, including funding and lack of practitioner time, motivation and knowledge.

Participants welcomed the advice to integrate smokeless tobacco cessation services within mainstream smoking cessation services.

The voluntary and community sectors were both seen as an important 'way in' to working with local communities. Participants noted that religious institutions, in particular, are an important lever for raising awareness. Overcoming the cultural issues associated with the use of smokeless tobacco products was seen as a key challenge.

Participants suggested the need to make reference to the new public health organisations and structures, post-2013, to help improve clarity and feasibility (this includes clinical commissioning groups [CCGs] and health and wellbeing boards [HWBs]). They also suggested giving more guidance on who should be responsible for recording health outcomes.

## Appendix D Gaps in the evidence

The Public Health Interventions Advisory Committee (PHIAC) identified a number of gaps in the evidence related to the interventions under examination, based on an assessment of the evidence. These gaps are set out below.

1. There is a lack of detailed and systematically collected data about the prevalence of smokeless tobacco use in England among South Asians, in particular, about the trends in its use over time, and the demographic breakdown of users.
2. There is no evidence on which factors determine the particular variety of smokeless tobacco used by different people of South Asian origin.
3. There is a lack of evidence about whether behavioural support or counselling (for individuals or groups) can reduce the prevalence of self-reported smokeless tobacco use among South Asians.
4. There is a lack of evidence about the effectiveness of brief interventions (including brief advice) delivered by health and social care professionals to South Asians who use smokeless tobacco. There is also a lack of evidence on the effectiveness of interventions delivered by community members or their peers.
5. There is no evidence about whether adverse events and withdrawal symptoms prevent South Asians from quitting smokeless tobacco.
6. There is a lack of evidence about whether changes in psychosocial factors (such as knowledge, attitudes or beliefs) impact on smokeless tobacco use among South Asians.
7. There is no evidence about what effect the following have on smokeless tobacco quit rates:
  - intervention setting
  - different intervention components
  - level of intensity of an intervention
  - age of participants
  - ethnicity of participants.

8. There is no evidence on whether or not smokeless tobacco cessation interventions are cost effective.

## Appendix E Supporting documents

Supporting documents include the following (see [supporting evidence](#)).

- Evidence reviews 1 and 2: 'Systematic review of effectiveness of smokeless tobacco interventions for South Asians and a review of contextual factors relating to smokeless tobacco use among South Asian users and the views of healthcare providers'.
- Economic modelling: 'Costs and effects of strategies to support quitting the use of smokeless tobacco'.
- Fieldwork report: 'Helping people of South Asian origin to stop using smokeless tobacco'.
- A pathway for professionals whose remit includes public health and for interested members of the public. This is on the [NICE website](#).

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 \(second edition, 2009\)](#)'

## 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](#).

### Changes after publication

January 2014: Title of 'Behaviour change: the principles for effective interventions' updated. This guidance was previously entitled 'Behaviour change'.

### 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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## *Accreditation*

