# *ABC of smoking cessation*
# Special groups of smokers

Tim Coleman

Earlier articles in this series have provided general guidance on delivering smoking cessation interventions. This chapter investigates issues relevant to several special groups of smokers.

## Pregnant women

In the United Kingdom over a quarter of pregnant women who smoke continue to do so during pregnancy. These women tend to be young, single, of lower educational achievement, and in manual occupations. If they have a partner, their partner is also more likely to smoke. Smoking has substantial adverse effects on the unborn child, including growth retardation, preterm birth, miscarriage, and perinatal mortality. Most of this harm is probably caused by toxins in cigarette smoke, such as carbon monoxide, nicotine, cyanide, cadmium, and lead. Nicotine itself may cause harm, however, through placental vasoconstriction and possible developmental effects on the fetus.

Ideally, women should stop smoking before getting pregnant. In practice, however, few do, and it is pregnancy itself that seems to be the key motivator to stop. About a quarter of women who smoke manage to stop for at least part of their pregnancy, mostly within the first trimester, but most of these start smoking again after their child is born.

Most pregnant women (80% in UK surveys) accept that stopping smoking is the most important lifestyle change that they can make during pregnancy, and consequently most women will be receptive to discussion of their smoking and the possibility of stopping. Those who continue to smoke, however, tend to hold rather different views from those who give up—for example, only about 30% of those who continue to smoke believe that smoking during pregnancy is "very dangerous" to their baby, compared with 80% of those who quit. It is, therefore, particularly important that health professionals tailor their message to the perceptions and beliefs of smokers in different stages of pregnancy.

### Evidence based cessation interventions

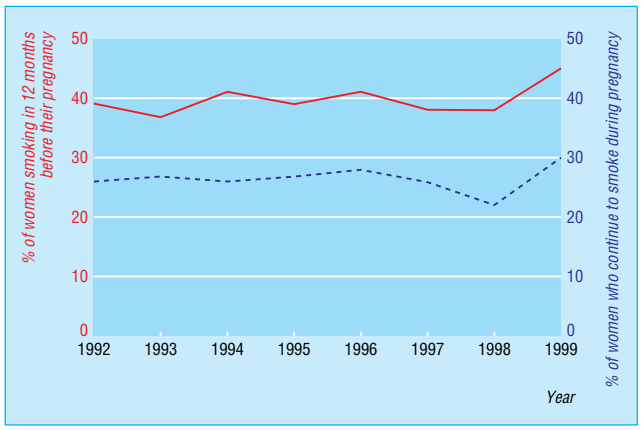
*Behavioural interventions*

The effectiveness of brief interventions by different health professionals is not as clearly established for pregnant smokers as for non-pregnant smokers, but some form of intervention is clearly necessary to prompt cessation. However, intensive cessation programmes delivered to pregnant women by specially trained staff outside routine antenatal care are of proved effectiveness in promoting cessation and in reducing low birth weight and preterm birth.

For every 100 pregnant women who are still smoking at the time of their booking an antenatal visit, about 10 will stop smoking with "usual care" and a further six or seven can be encouraged to stop as a result of formal cessation programmes. As the available trials have investigated the effects of varied programmes—with few common elements—it is difficult to draw conclusions about which facets of these are effective.

*Pharmacotherapy*

Ideally, to minimise potential adverse effects on the fetus, pregnant smokers should give up smoking without resort to pharmacotherapy. In practice, however, many do not. Thus, the




Prevalence of smoking in women before and during pregnancy, 1992-9. Adapted from Owen and Penn, 1999 (see Further Reading box)

**Clinical issues to highlight or be aware of in relation to pregnant women who smoke***

| Clinical issue | Reason |
|---|---|
| Women should stop smoking early in pregnancy if possible | Early quitting provides the greatest benefit to the fetus |
| Women can stop smoking any time during pregnancy | Fetus benefits even when women quit later in pregnancy |
| Emphasise the immediate benefits of stopping smoking | Both mother and baby will benefit very soon after stopping |
| Provide pregnancy related, motivational messages | These messages are associated with higher quit rates |
| Be alert to patients minimising or denying their smoking | Minimising or denying smoking is common among pregnant women who smoke |

*Adapted from Fiore MC et al. *Smoking cessation. Clinical practice guideline No 18.* Rockville, MD: Department of Health and Human Services, Pubic Health Service, Agency for Health Care Policy and Research., 1998. (US AHCPR publication No 96-0692.)

**Generally the more intensive the intervention the more effective it is; however, group based intensive interventions for pregnant women have tended to be poorly attended**

**Possible evidence based approach to cessation intervention in pregnancy**

- Doctors and midwives should use their consultations to identify women who are motivated to try to stop
- They should then refer them for individual, intensive smoking cessation interventions
- These interventions can be delivered by specialist cessation services or any health professional with adequate time and training (see earlier article in this series)

relative risks and benefits of pharmacotherapy need to be considered. As bupropion is specifically contraindicated in pregnancy, and other antidepressants are subject to special caution, the treatment of choice is nicotine replacement therapy (NRT). Any safety concerns about this treatment can be discounted by the fact that the alternative for most women is continued smoking and hence continued fetal exposure to nicotine and other toxins. To avoid unnecessary exposure of the fetus to nicotine it is probably advisable to avoid the longer acting NRT formulations, such as 24 hour transdermal patches.

However, although the only published placebo controlled trial of NRT in pregnancy showed a significant increase in birth weight in babies born to women who used NRT, it showed no effect on cessation. This is an area of high priority for further research.

## Adolescents

In Britain, the proportion of young people starting to smoke has remained fairly stable over the past 20 years. In 1988, 8% of 11 to 15 year olds in England were regular smokers; by 1996 the proportion had increased to 13%, but since 1998 the figure has remained around 10%. As 80% of smokers start smoking as teenagers, the prevalence of smoking among teenagers has serious implications for public health. Young smokers are aware of the health risks of smoking and most would like to stop, but their attitudes towards their habit are more changeable than those of adult smokers. Although young smokers report smoking few cigarettes, many consider themselves to be addicted to tobacco and believe that stopping would be difficult. Young smokers are also more likely to drink alcohol or take illicit drugs.

Reducing smoking among young people presents a challenge for health professionals. Preventing uptake of smoking would result in the greatest population health gain, but the reasons why adolescents start smoking are many and complex (see earlier article in this series). Young people who have friends and family members who smoke are more likely to start themselves, and, for many young people, smoking is a social activity, with the first cigarette being provided by friends.

Many school based education campaigns aimed at preventing children from starting smoking have been studied, but the studies have shown mixed results. And as most of this work has been conducted in North America, the findings might not be completely generalisable to education systems in other countries. No evidence exists that campaigns involving giving information alone are effective, but where educational campaigns train young people to resist the social influences that encourage them to smoke, they can be effective.

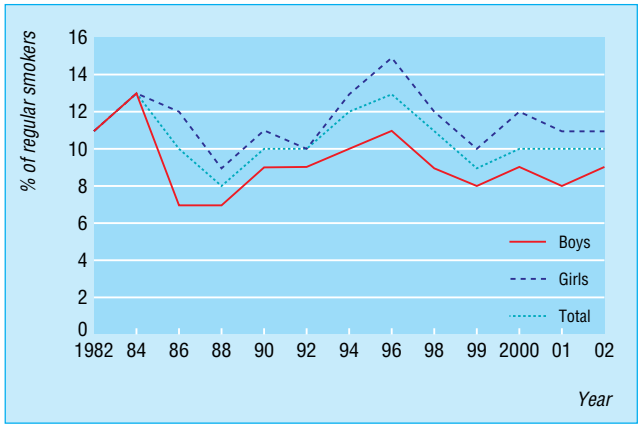
"Social influence training" introduces young people to skills that, if used, reduce their likelihood of becoming regular smokers—for example, skills for refusing cigarettes when offered by peers. The best methods for preventing uptake of smoking by young people have yet to be discovered, and broad based prevention programmes that tackle the many factors involved in this have been advocated. One possible role for health professionals in such a universal strategy is to give brief advice reinforcing the health risks posed by smoking whenever young people present for health care.

Information is lacking about which smoking cessation interventions are effective for young people. Brief advice or behavioural counselling is likely to be effective, but this has yet to be proved. No randomised placebo controlled trials of NRT have been conducted among young smokers, and neither NRT nor bupropion is currently licensed for use in Britain in the under 16s. The best methods for delivering antismoking

**Cessation interventions in pregnancy: recommendations and evidence***

| Recommendation | Strength of evidence |
|---|---|
| Pregnant smokers should be strongly encouraged to stop throughout pregnancy; pregnant smokers should be offered intensive counselling treatment | A |
| Brief interventions (for example, brief advice from health professionals) should be used if more intensive interventions are not feasible | C |
| Motivational messages on the impact of smoking both on the pregnant woman and on the fetus should be given | C |
| Nicotine replacement therapy should be used during pregnancy if the benefits of using this (increased likelihood of cessation) outweigh the risks (from extra nicotine if women use the therapy and continue to smoke) | C |

A = many well designed randomised controlled trials with a consistent pattern of findings. C = recommendation based on panel consensus in the absence of evidence from randomised controlled trials.
*Adapted from Fiore MC et al (details as for table, previous page).




Prevalence of regular cigarette smoking in schoolchildren aged 11-15 in England, 1982-2002. Data from the Department of Health Statistics

**Preventing uptake of smoking by young people**

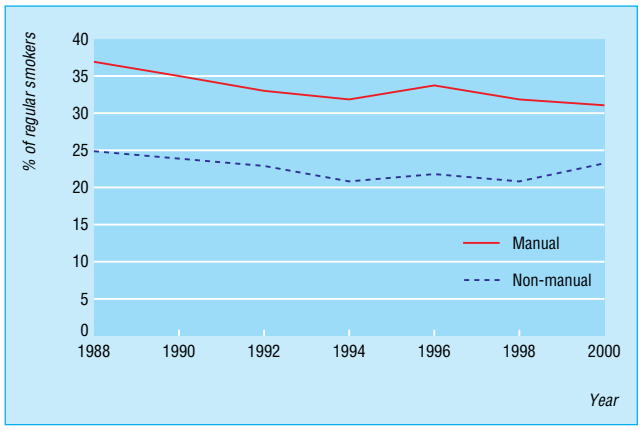
| Factor to be tackled | Intervention |
|---|---|
| Influence of family members (parental smoking, sibling smoking, and family attitudes to smoking) | Local, community based initiatives running concurrently with school campaigns and media campaigns providing consistent messages |
| Peer influence | Social influence training (community or school based); media campaigns |
| School influence | School based social influence training; media campaigns |
| Relevance of media campaigns | Piloting or developmental work to refine messages for local populations |
| Changing young people's attitudes to smoking before they experiment with cigarettes | Develop campaigns aimed at children aged 4 to 8 years |

**Health professionals could consider becoming involved in school based, anti-tobacco education programmes that promote acquisition of social influence skills for young people**

interventions to young people have also yet to be determined, as services designed for adults may not appeal to young smokers.

## People with low income

Although the overall prevalence of smoking in the United Kingdom has decreased markedly over the past 30 years, little change has occurred among those living on low incomes. In the most deprived groups, smoking prevalence can be very high, reaching 90% among the homeless. The disparity in smoking prevalence between the most and least advantaged members of society is the single most important factor contributing to the gap in "healthy life expectancy" (amount of time that someone is expected to live in a healthy state) between these groups. As motivation to quit is fairly similar across social groups, poorer smokers cannot be blamed for failing to quit because they have lower motivation. As disadvantaged smokers tend to be more seriously addicted, however, there may be even greater justification for using pharmacotherapy in this group.

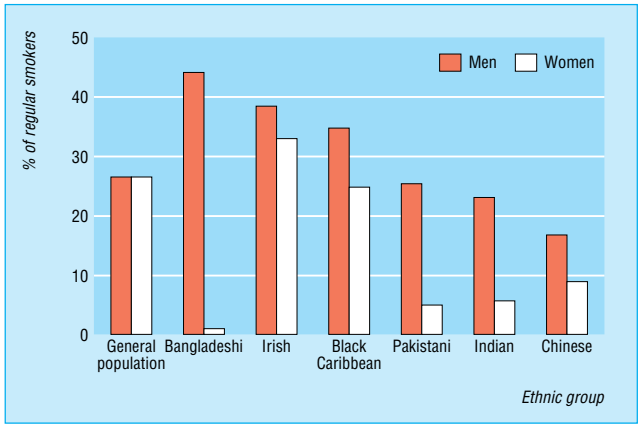



Prevalence of regular smoking in England by occupational socioeconomic group, 1988-2000. Data from general household survey

## Ethnic minority groups

The prevalence of smoking varies greatly among different ethnic communities living in Britain. Bangladeshi, Black Caribbean, and Irish men and women have a higher than average prevalence of smoking, whereas fewer women from South Asian ethnic minority groups smoke compared with the general population. In the Bangladeshi population, the use of chewing tobacco is also common, with 19% of men and 26% of women using oral tobacco products.

Antismoking interventions described in earlier articles can all be used with smokers from ethnic minority groups. These interventions are probably all effective, but little research in the United Kingdom has specifically investigated whether the interventions differ in their effectiveness across ethnic groups. This has been investigated in the United States, however, where antismoking interventions were found to be of equal effectiveness across all racial groups. Health professionals need to bear in mind that some ethnic groups, especially Bangladeshis, may use tobacco in other harmful ways (for example, chewing) in addition to smoking it.




Prevalence of smoking in England, by ethnic minority group, 1999. Data from health survey for England

### Further reading

- Preventing the uptake of smoking in young people. *Effective Health Care* 5(5). www.york.ac.uk/inst/crd/ehcb.htm
- Fiore MC. US public health service clinical practice guideline: treating tobacco use and dependence. *Respir Care* 2000;45:1200-62.
- Lumley J, Oliver S, Waters E. Interventions for promoting smoking cessation during pregnancy. *Cochrane Database Syst Rev* 2003;(3):CD 001055.
- Owen L, Penn G. *Smoking and pregnancy: a survey of knowledge, attitudes and behaviour, 1992-9*. London: Health Development Agency, 1999.
- Wisborg K, Henriksen TB, Jespersen LB, Secher NJ. Nicotine patches for pregnant smokers: a randomized controlled study. *Obstet Gynecol* 2000;96:967-71.

### Key points

- Two thirds of women who stop smoking while pregnant restart afterwards
- Cessation programmes for pregnant women are effective; where these are available, health professionals must refer women to them
- Eighty per cent of adult smokers started smoking as teenagers, but effective methods of prevention or cessation for young people remain unknown
- Smoking is most common among poorer people, explaining much of the disparity in healthy life expectancy between the richest and poorest groups in Britain
- Patients from some ethnic groups are more likely to smoke than others; tobacco may also be chewed, especially among Bangladeshi people

The data for the last three graphs are from www.doh.gov.uk/public/mainreport-smokingdrinkinganddruguse2002.pdf and www.statistics.gov.uk/lib2001/viewerchart5041.html and www.archive.official-documents.co.uk/document/doh/survey99/hses-02.htm#gen19 respectively (accessed 15 December 2003).

Competing interests: TC has been paid for speaking at a conference by GlaxoSmithKline, a drug company that manufactures treatments for nicotine addiction; he has also done consultancy work on one occasion for Pharmacia. See first article in this series (24 January 2004) for the series editor's competing interests.

Tim Coleman is senior lecturer in general practice at the School of Community Health Sciences in the Division of Primary Care at University Hospital, Queen's Medical Centre, Nottingham.

The ABC of smoking cessation is edited by John Britton, professor of epidemiology at the University of Nottingham in the division of epidemiology and public health at City Hospital, Nottingham. The series will be published as a book in the late spring.

*BMJ* 2004;328:575–7