

Smoking prevention among young people

Key Messages

- Smoking is the main cause of preventable illness and premature death in Britain.
- Smoking among young people has been falling steadily but still presents a significant health threat.
- Young smokers are at increased risk of illegal drug use.
- Drug education can reduce levels of smoking among young people if it is interactive and focused on young people's skills, attitudes and values, including correcting young people's overestimates of smoking prevalence.
- If young people's uptake of smoking is delayed they have a better chance of quitting successfully in later life - this means that interventions which achieve this can be cost-effective.

Mentor: Thinking Prevention

Mentor works to identify and promote the best means of protecting young people from alcohol and drug harms. These clearly cannot be separated from other facets of young people's physical, social and emotional wellbeing. This briefing paper is one of a series of five which explore public health issues including underage conception, smoking, crime and anti-social behaviour, alcohol harms and disengagement from school. We can't afford to wait until adulthood to tackle these problems, so it is vital to understand prevention approaches that can be effective with children and young people

The papers are available from www.mentoruk.org.uk/publichealth

Smoking: a dangerous habit

Smoking is the main cause of preventable illness and premature death in Britain. Around 86% of lung cancer deaths in the UK are caused by tobacco smoking, and a wide range of other cancers are also linked to smoking. An estimated 102,000 people died in 2009 from smoking-related diseases including cancers.¹

The Tobacco Control Plan aims by the end of 2015 to reduce rates of regular smoking among 15 year olds in England to 12% or less and adult (aged 18 or over) smoking prevalence in England to 18.5% or less.²

About Mentor

Mentor is the UK's leading charity dedicated to protecting young people from drug and alcohol harms. We review research from around

the world, test promising approaches and work to translate best policy and practice into evidence based national and local services.



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Young smokers: getting hooked

Around two thirds (67%) of regular smokers aged 11-15 reported that they would find it very or fairly difficult to not smoke for a week while almost three quarters (73%) reported that they would find it difficult to give up smoking altogether.³ Addiction can start early: among 12-13 year old occasional smokers, two thirds showed one or more symptom of nicotine dependence.⁴

Research suggests that even the earliest experimentation with cigarettes can have a significant impact. A UK study found that children who reported having tried smoking cigarettes just once age 11 were twice as likely to start smoking aged 14, even if they had not smoked in the intervening period. This was still true even once sex, ethnicity, deprivation, parental smoking and conduct disorder were adjusted for.⁵ Another, US, study found that smoking just one cigarette in early childhood doubled the chance of a teenager becoming a regular smoker by the age of 17.⁶

The explanation for this may be chemical (pathways in the brain changing as a consequence of a single exposure to nicotine, increasing vulnerability to smoking triggers such as stress at a later date) or social (experimenting with a cigarette might break down barriers that would otherwise prevent teenagers from taking up smoking - such as insecurities about how to smoke and fear of being caught by adults).

The earlier someone starts, the more likely they are to smoke for longer – and to die earlier from a related condition or disease. Population studies show those who start to smoke at an early age are less likely to have successfully given up smoking in later life.⁷ This association is still significant when confounding variables such as sex, ethnicity, social class, education and geographical location are taken into account.

Health risks of childhood smoking

There is an immediate impact on respiratory health from adolescent smoking, with symptoms such as coughs, phlegm and shortness of breath.

However, it is the long-term effects that are of greatest concern. Because nicotine is so addictive, many young smokers will carry on into adulthood. Almost 40% of regular smokers began smoking before they were 16,⁸ and there seem to be particular risks to starting smoking at a young age.

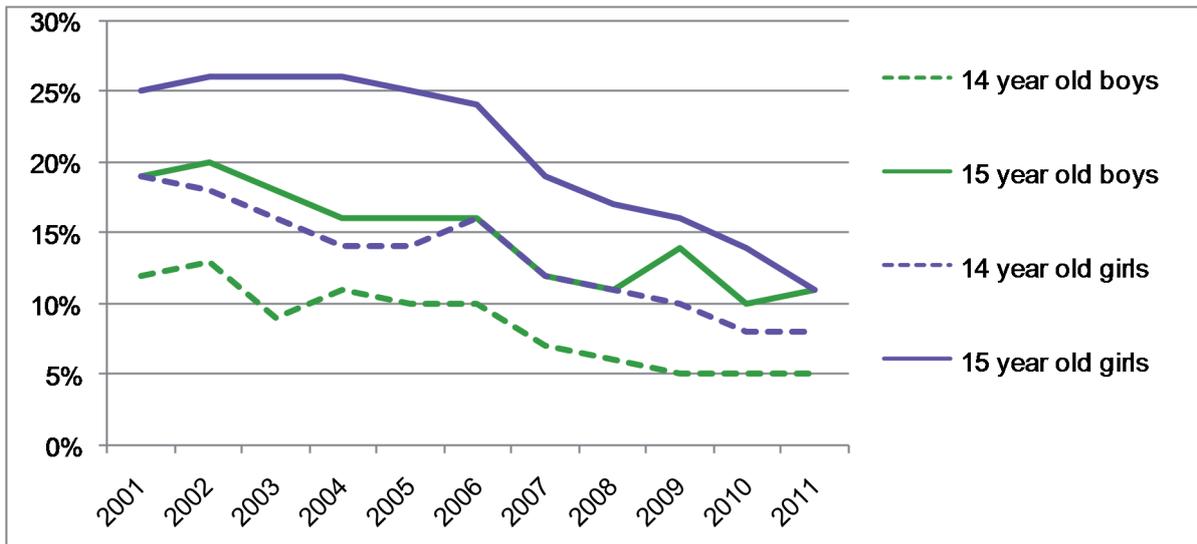
In part, this is simply because these smokers tend to spend longer smoking during their lifetime but there are also other factors involved. While a greater number of years as a smoker increases the risk of lung cancer, there is also evidence that for former smokers, the age at which they started may in itself be a significant factor in their risk of getting lung cancer.¹⁰

Starting to smoke in childhood is associated with an increased risk of obstructive airways disease such as asthma, bronchitis or emphysema because the total number of cigarettes smoked will be greater. In women, childhood smoking is itself an independent risk factor for the development of airways disease.⁹

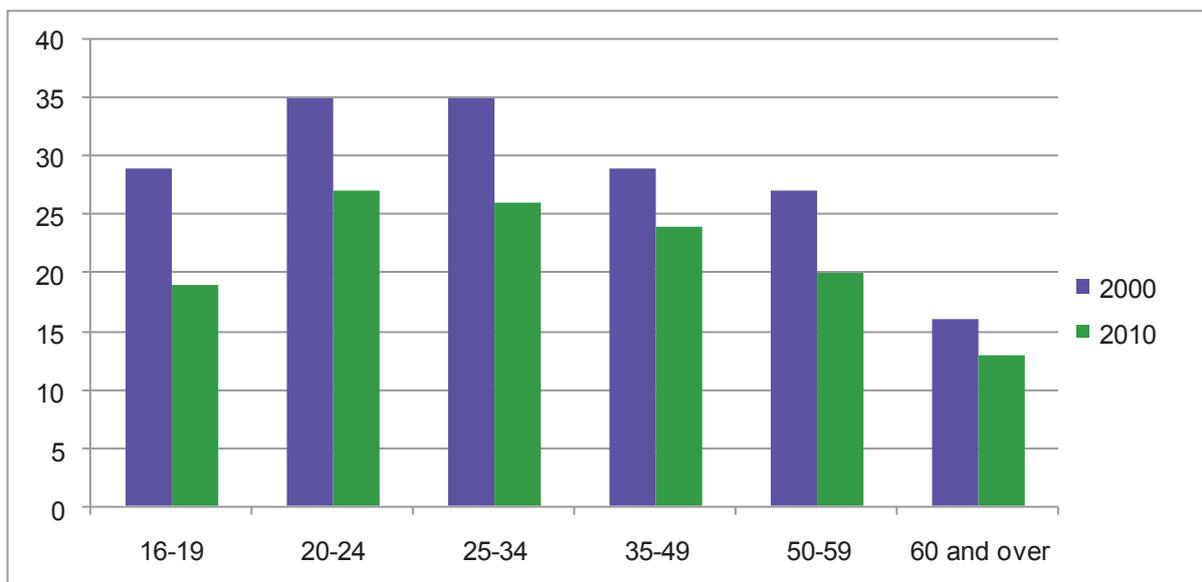
Decline in smoking in the UK

The good news is that smoking is now less popular. The graphs below show how smoking has declined in popularity among both young people and adults over the past decade.

Proportion of 14 and 15 year old regular smokers, 2001-2011³



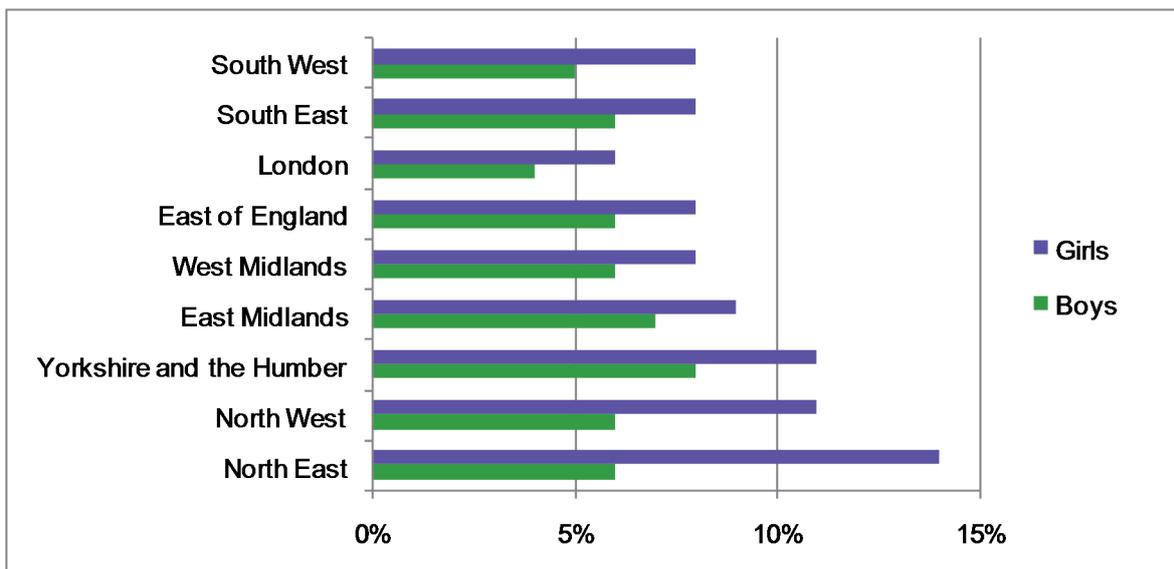
Adult smokers by age group in 2000 and 2010¹²



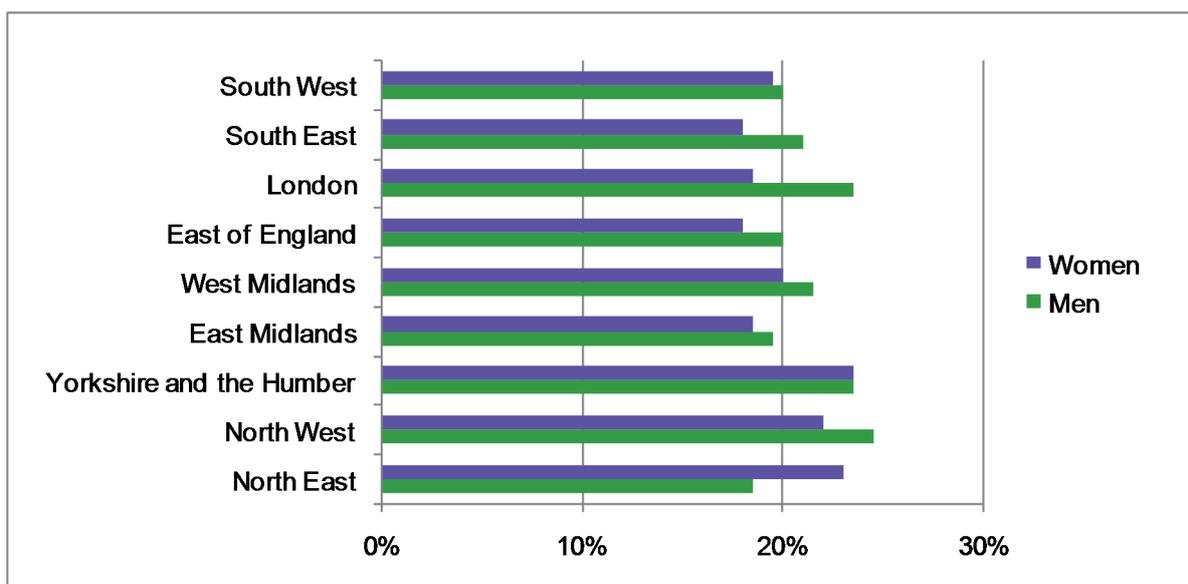
Regional differences

As shown in the graphs below there are significant variations between the English regions. The prevalence of smoking among young girls is significantly higher in the north of England, a pattern which is also seen among adult women. For male smokers, the correlation between regional prevalence among under-16s and adults is very weak. These differences highlight the importance of using local data to plan services and interventions.

Regional differences in smoking among 11-15 year olds (2006-2008 data)³



Regional differences in smoking among adults (2006-2008 data)¹¹



Who smokes?

By the time they are 15, 25% of girls and 18% of boys describe themselves as regular or occasional smokers.

Among the general population, there are higher rates of smoking among those in 'routine and manual' socio-economic groups, a major contributor to unequal health outcomes.

Among young people (11-15 year olds), there is a range of risk factors that make it more likely that they will start smoking. (Numbers in brackets show increased odds of smoking after controlling for other factors).³

- Having drunk alcohol in the previous week (6.17)
- Having friends who smoke (5.25)
- Living with other smokers (2.89)
- Belief that family would try to stop them smoking, rather than 'persuade them to stop' (2.43)
- Playing truant from school (2.37)
- Being a girl (2.08)
- Receiving free school meals (an indication of family deprivation) (1.71)

Tobacco: a 'gateway drug'?

There is considerable overlap between young people drinking, smoking and using illicit and illegal drugs. Among 15 year olds surveyed in 2011, of those who had smoked tobacco in the past week, half (50%) reported drug use in the past month. This compares with 5% of non-smokers during the past week.¹² A likely reason for this is that cigarette smokers are more likely to move on to smoking cannabis, by far the most common illicit drug among young people. Those who had smoked in the past week were also three times as likely to have drunk alcohol: 63% compared to 21%.

Drug education and public health messages

It is important to teach children and young people about the health risks associated with smoking. However, knowledge alone is clearly not enough to prevent people taking up the habit: if it were, smoking would be far less common than it currently is.

One problem is that messages may have unintended consequences. While graphic photographs of smokers' lungs may instil fear in some students and make them less likely to try cigarettes, others may have a defensive reaction to the threat, avoiding the unpleasant message rather than altering their intentions about smoking.

Another possible reaction is anger at feeling lectured or dictated to, as if their freedom to make their own decisions is under threat. This contrary reaction to strong messages or instructions is called 'psychological reactance'. There is some evidence that young people's levels of psychological reactance are a risk factor for starting smoking.¹³ Drug education and public health messages to young people need to be designed with care or they risk being effective only with those young people who were at low risk of smoking to start with.

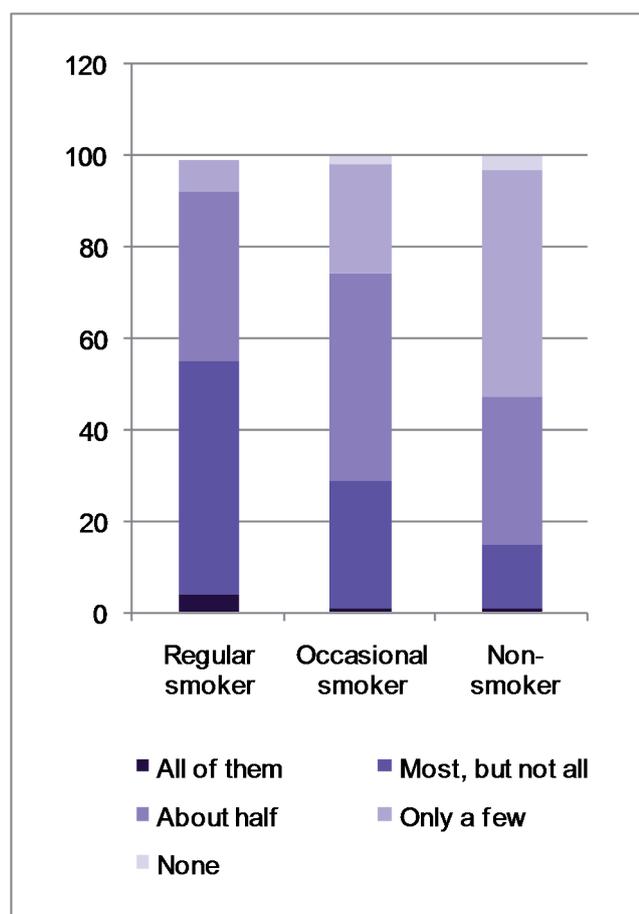
The type of drug education which is most effective is interactive, allowing discussion about attitudes and values. Pupils consider pressures to smoke, drink and take drugs, from the media and amongst their peers and practise the personal and social skills that help them manage risk, solve problems and communicate effectively. Some programmes based on these principles have been tested in randomised controlled trials and found to reduce substance use among young people. For example, a US study of Life Skills Training, a three year programme, found statistically significant reductions in cigarette smoking among young people three years after completion.¹⁴

An important element of 'social influences' programmes such as Life Skills Training is the consideration of social norms. Like adults, young people are influenced in their decisions by what they believe is normal and generally accepted

amongst their peer group. As smoking has become less popular among young people, tolerance has decreased as well. In 2010 a minority of 15 year olds (31%) said that they thought it was OK to smoke once a week.³

However, young people, particularly smokers, often believe smoking is more common and accepted than it actually is. The graph below shows 15 year olds' opinions on how many people their age smoke. At this age, 12% of pupils are regular smokers and 9% occasional smokers, so 'only a few' is still the most accurate answer of those offered. Just 7% of regular smokers and a quarter of occasional smokers guessed this. Even among non-smokers, almost half overestimate the proportion that smoke.³

15 year olds' beliefs about how many people their age smoke³



Other smoking interventions with young people

Absence from school is a strong predictor of smoking risk, so interventions which tackle this are expected to have an impact on smoking (see another paper in this series: *Disengaged from school, engaged with drugs and alcohol?*).

It is important that young smokers have easy access to support to help them quit. The boundary between smoking prevention and cessation work may be unclear, as children and young people may experiment with smoking, taking up and dropping the habit intermittently, before becoming regular tobacco users. More research is needed on the most effective programmes for young people

Reviewing different interventions, NICE concluded that programmes which combined a variety of approaches, including taking into account the young person's preparation for quitting, supporting behavioural change and enhancing motivation, showed promise.¹⁵ As a minimum, information on local NHS Stop Smoking Services should be easily available in schools.¹⁶

Access to cigarettes

The proportion of pupils refused cigarettes when they tried to buy them in a shop has been rising steadily since the mid 1990s. In October 2007, the minimum legal age for buying tobacco rose from 16 to 18. The 2008 survey of 11-15 year olds' smoking, drinking and drug use showed a significant fall in the proportion of regular smokers who said that they bought cigarettes in shops (from 78% to 55%). However, in 2010, half of 15 year old smokers still said that one of their usual sources of cigarettes was to buy them from a shop. Of those 15 year olds who had tried to buy cigarettes from a shop in the past year, almost three-quarters (73%) were successful the last time they tried.³

Various interventions including warnings and fines for retailers who illegally make sales to underage youth have been shown to reduce the proportion

of retailers who are willing to sell tobacco to young people.¹⁷ However, it has been more difficult to demonstrate a clear effect on young smokers' perceptions of how easily they can buy cigarettes, or their smoking behaviour. It is likely that only a high level of compliance from all local retailers will have a significant impact on young people's access to tobacco.

Cost-effectiveness of prevention

The fact that young people who start smoking just a few years later are more likely to quit successfully in later life is important in calculating the cost-effectiveness of prevention programmes. NICE research demonstrates that even education which delays smoking uptake (rather than preventing it altogether) can be a cost-effective public health intervention.⁷ NICE recommends that to be most effective prevention efforts should begin in primary school and continue throughout a young person's time in school.¹⁶

Resources

- NICE (2010) NICE public health guidance 23: [School-based interventions to prevent the uptake of smoking among children and young people](#). National Institute for Health and Clinical Excellence
- ASH toolkit: [The case for local action on tobacco](#)
- James, C. (2012) [Engaging parents in drug education](#). Drug Education Forum
- James, C. (2012) [Beyond the lesson plan: Drug prevention and early intervention](#). Drug Education Forum
- James, C. (2012) [Learning from life skills programmes in drug education](#). Drug Education Forum

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