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The 21st century hazards of smoking and benefits of stopping: a prospective study of **one million women** in the UK

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Study Collaborators

Interpretation:

Among UK women, *two-thirds of all deaths of smokers in their 50s, 60s, and 70s are caused by smoking; smokers lose at least 10 years of lifespan. Although the hazards of smoking until age 40 years and then stopping are substantial, the hazards of continuing are ten times greater. Stopping before age 40 years (and preferably well before age 40 years) avoids more than 90% of the excess mortality caused by continuing smoking; stopping before age 30 years avoids more than 97% of it.*

Summary

Background Women born around 1940 in countries such as the UK and USA were the first generation in which many smoked substantial numbers of cigarettes throughout adult life. Hence, only in the 21st century can we observe directly the full effects of prolonged smoking, and of prolonged cessation, on mortality among women in the UK.

Methods For this prospective study, 1·3 million UK women were recruited in 1996–2001 and resurveyed postally about 3 and 8 years later. All were followed to Jan 1, 2011, through national mortality records (mean 12 woman-years, SD 2). Participants were asked at entry whether they were current or ex-smokers, and how many cigarettes they currently smoked. Those who were ex-smokers at both entry and the 3-year resurvey and had stopped before the age of 55 years were categorised by the age they had stopped smoking. We used Cox regression models to obtain adjusted relative risks that compared categories of smokers or ex-smokers with otherwise similar never-smokers.

Findings After excluding 0·1 million women with previous disease, 1·2 million women remained, with median birth year 1943 (IQR 1938–46) and age 55 years (IQR 52–60). Overall, 6% (66 489/1 180 652) died, at mean age 65 years (SD 6). At baseline, 20% (232 461) were current smokers, 28% (328 417) were ex-smokers, and 52% (619 774) were never-smokers. For 12-year mortality, those smoking at baseline had a mortality rate ratio of 2·76 (95% CI 2·71–2·81) compared with never-smokers, even though 44% (37 240/85 256) of the baseline smokers who

responded to the 8-year resurvey had by then stopped smoking. Mortality was tripled, largely irrespective of age, in those still smoking at the 3-year resurvey (rate ratio 2.97, 2.88—3.07). Even for women smoking fewer than ten cigarettes per day at baseline, 12-year mortality was doubled (rate ratio 1.98, 1.91—2.04). Of the 30 most common causes of death, 23 were increased significantly in smokers; for lung cancer, the rate ratio was 21.4 (19.7—23.2). The excess mortality among smokers (in comparison with never-smokers) was mainly from diseases that, like lung cancer, can be caused by smoking. Among ex-smokers who had stopped permanently at ages 25—34 years or at ages 35—44 years, the respective relative risks were 1.05 (95% CI 1.00—1.11) and 1.20 (1.14—1.26) for all-cause mortality and 1.84 (1.45—2.34) and 3.34 (2.76—4.03) for lung cancer mortality. Thus, although some excess mortality remains among these long-term ex-smokers, it is only 3% and 10% of the excess mortality among continuing smokers. If combined with 2010 UK national death rates, tripled mortality rates among smokers indicate 53% of smokers and 22% of never-smokers dying before age 80 years, and an 11-year lifespan difference.

Interpretation

Among UK women, two-thirds of all deaths of smokers in their 50s, 60s, and 70s are caused by smoking; smokers lose at least 10 years of lifespan. Although the hazards of smoking until age 40 years and then stopping are substantial, the hazards of continuing are ten times greater. Stopping before age 40 years (and preferably well before age 40 years) avoids more than 90% of the excess mortality caused by continuing smoking; stopping before age 30 years avoids more than 97% of it.

Funding Cancer Research UK, Medical Research Council.



Over 78,500 children have started smoking since consultation on standardised tobacco packaging ended 14 February 2013

<http://www.rcplondon.ac.uk/press-releases/over-78500-children-have-started-smoking-consultation-standardised-tobacco-packaging->

This Valentine's Day the Smokefree Action Coalition is calling on the government to take action and 'have a heart' by committing to legislation to make all tobacco packaging standard. Today is the tenth anniversary of the implementation of the ban on tobacco advertising and the seventh anniversary of the Commons vote for smokefree legislation. Valentine's Day is therefore an ideal date for the government to make its decision known.

The clock is ticking. Since the consultation on the legislation ended just over six months ago, it is estimated that 78,500 children will have started smoking in the UK, a number which grows by 430 every day. Now the Smokefree Action Coalition, an alliance of over 190 health organisations including the BMA, medical royal colleges, public health bodies, academic institutions and health charities, is calling on the Government to publish the results of its consultation and announce that it will go ahead with legislation.

Currently in the UK, there are no restrictions on the way tobacco multinationals are allowed to promote their brands through packaging. The packs are now the principal form of tobacco promotion and are designed to attract existing and potential consumers **with colourful and eye-catching imagery**.

Deborah Arnott, Chief Executive of health charity ASH said:

The evidence is clear that heavily branded, brightly coloured packs are attractive to children. It's been six months since the consultation closed and the clock is ticking. Every day hundreds more children take up smoking - children who need protecting from tobacco industry marketing. The government must commit now to legislation to put all tobacco products in standard packs.

Sir Richard Thompson, President of the Royal College of Physicians, said:

As a young doctor I was depressed to see so many patients in their 50s and 60s suffering because they had started smoking as children. Back then there was very little we could do, but now we have the opportunity to help protect our children by implementing standardised packaging.

Dr Harpal Kumar, Cancer Research UK's Chief Executive, said:

Around 430 children start smoking in the UK every day. With one in four cancer deaths caused by smoking, this is far too many children who are pulled into the lethal addiction. More than 80,000 Cancer Research UK supporters were among the 200,000 people calling on the government to introduce plain, standardised cigarette packs Our supporters run marathons and climb mountains to bring forward the day when we beat cancer. When the Government has a practical way to help prevent cancer, we urge it to act.

Louise Morris, 36, a mother and former smoker from Newcastle who was influenced by cigarette packaging as a child, also wants the government to act. She said:

I started smoking with a group of friends when I was 13 years old. We all thought it was really fashionable to smoke the brand of cigarettes that looked the most attractive and I remember smoking cigarettes in a shiny gold packet because it made us feel like we were smoking a glamorous brand of cigarettes that looked more expensive compared to everyone else's cigarettes.

There is no evidence that standardised packaging will bolster the illegal tobacco trade as some tobacco multinationals suggest. Branded tobacco packaging is no obstacle to counterfeiters and standardised packs would carry the same covert markings currently used to distinguish legal from illicit tobacco products. Legislation which ensures tobacco packaging is free from attractive designs will, above all else, help to discourage children from starting to smoke.

Smoking is a childhood addiction, not an adult choice. More than 150,000 children start smoking each year in the UK. Half of all lifelong smokers will die from their addiction, amounting to over 100,000 people last year in the UK.

Putting tobacco products in standardised packs is a popular measure. Opinion research shows that 62% of the public support the plain, standardised packaging of tobacco products, with more smokers supporting than opposing the measure. Over 200,000 people have expressed their support for the introduction of plain, standardised packaging of tobacco products in the UK. Internationally, standardised packaging is already in place in Australia which became the first country to implement such legislation in December 2012. It's time for the UK to follow suit.

[Visit the Smokefree Action Coalition website.](#)

Related topics: [Tobacco](#)

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WHO Factsheet

<http://www.who.int/mediacentre/factsheets/fs339/en/index.html>

One in two smokers will die from smoking

'Tobacco is the only consumer product that will kill half its users when used as intended.'

One in two long-term smokers, who do not quit smoking, will die early from a smoking-related illness. Smokers are twice as likely as non-smokers to die when they are in middle age.

[Download the evidence...](#)

<http://smokefree.org.nz/face-facts>