



Calculation of smoking prevalence for ex-smokers in the Annual Population Survey

About the Annual Population Survey

The Annual Population Survey (APS) is a continuous household survey run by the Office for National Statistics, covering the UK. Each year around 320,000 people (160,000 in England) are asked questions regarding a variety of measures related to health, employment and unemployment, housing, education, ethnicity and religion.

The 'smoking' questions

For 2016, there has been a change in the questions related to smoking which has had an impact on the calculation of ex-smokers.

Previously respondents were asked the following two questions:

- Have you ever smoked a cigarette, cigar or pipe? (yes/no)
- Do you smoke cigarettes at all nowadays? (yes/no)

The prevalence of ex-smokers was then calculated as those respondents answering 'yes' to the first questions and 'no' to the second. However, it was felt that this was generally overestimating the prevalence of ex-smokers as respondents who had perhaps only smoked just one cigarette previously in their life may answer yes to the first question and would therefore be classed as an ex-smoker when they have not ever been a regular smoker.

In response to this, the questions have been changed as follows:

- Have you ever smoked cigarettes regularly? (yes/no)
- And do you smoke cigarettes at all nowadays? (yes/no)

The prevalence of ex-smokers is calculated as the proportion of respondents answering 'yes' to the first and 'no' to the second question.

How has this affected the results?

It is important to note that all three of the questions are asked in the **Opinions and Lifestyle Survey (OPN)** which allows us to estimate the impact of the change on the results by **comparing the figures in the APS with the OPN**. In 2015, the proportion of ex-smokers according to the APS (England, those aged 18 and over) was 34.5% compared with 25.7% in the OPN, and with the new questions in 2016, this proportion of ex-smokers had dropped to 26.2%, which is closer to the 23.2% figure in the OPN.

According to the APS, in local authorities the difference between the smoking prevalence for ex-smokers in 2015 and 2016 was largest in Kingston upon Thames (reduction of 17.4% from 37.2% to 19.8%), Hammersmith and Fulham (reduction of 16.8% from 40.0% to 23.2%) and Kensington and Chelsea (reduction of 16.3% from 40.2% to 23.9%). Just one local authority saw an increase in the percentage of ex-smokers (Coventry increasing 1.2% from 18.7% to 19.9%).

Correspondingly, the proportion of respondents that have 'never smoked' has also increased with the change of question.

Due to this discontinuity, any trends in the following indicators should be observed with caution:

- Smoking prevalence in adults – ex-smokers (APS)
- Smoking prevalence in adults – never smoked (APS)
- Smoking prevalence in adults in routine and manual occupations – ex-smokers (APS)
- Smoking prevalence in adults in routine and manual occupations – never smoked (APS)

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