

Whilst there have been many surveys of asthma prevalence in European countries, most have used different methods, which limits our ability to make valid international comparisons. However, two international studies of respiratory disease using standardised methods have been set up in the last few years: the European Community Respiratory Health Survey (ECRHS) and the International Study of Asthma and Allergies in Childhood. This factsheet presents data on adults from the ECRHS.

The ECRHS

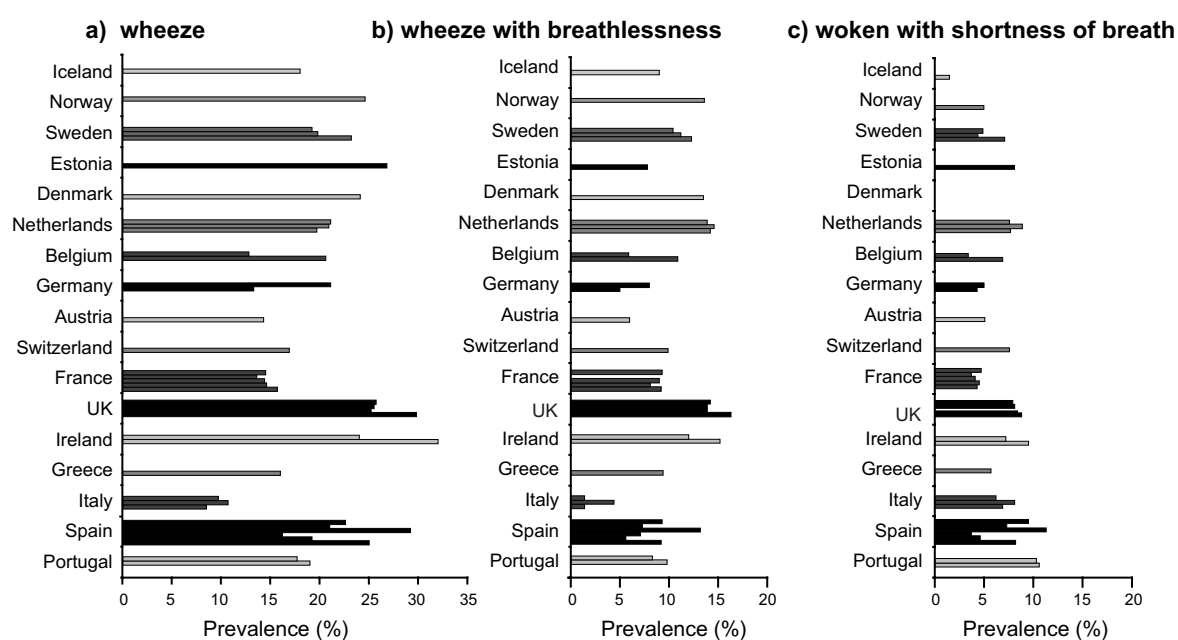
Between 1990 and 1994, random samples of at least 1500 males and 1500 females aged 20-44 living in 40 areas in 17 European countries were sent a standardised questionnaire about respiratory symptoms (questions from the English version are given in the footnote). Each area was selected to have a population of at least 150,000 people in order to reduce the chance of giving

unrepresentative samples. The response rate varied from 54% to 99%, median 80%, after allowing for those who were the wrong age, had moved out of the area or died. A sample of respondents were then asked to complete a more detailed questionnaire, administered by an interviewer, covering other symptoms, potential risk factors and use of health services. They also had measurements of bronchial reactivity, skin reactivity and serum IgE. Results from the postal questionnaire were published in 1996 and are described below. Other data are currently being analysed.

Symptoms of asthma

Figure 1 shows the variations in the prevalence of wheeze, wheeze with breathlessness, and being woken by shortness of breath. These ranged from 8.5% (Pavia, Italy) to 32.0% (Dublin), 1.4% (Verona, Italy) to 16.3% (Caerphilly, UK) and 1.5% (Iceland) to 11.3% (Huelva, Spain), respectively. In general, the prevalence of symptoms tended to be higher in Northern Europe compared with Southern Europe, though there were exceptions. The study also found variations in the prevalence of symptoms within some countries: in Spain, for example, the prevalence of wheeze in the last year was 16.2% in Galdakao and 29.2% in Huelva. Reported attacks of asthma were more common where there was a high prevalence of reported nasal allergies. In general, the highest prevalence of symptoms was found in English-speaking centres. It is not known if translations of the questionnaire are less sensitive at detecting symptoms.

Figure 1: Prevalence of asthma symptoms in the past 12 months



NB: Each bar corresponds to one centre in a country

Source: European Community Respiratory Health Survey

Diagnosed asthma and treatment

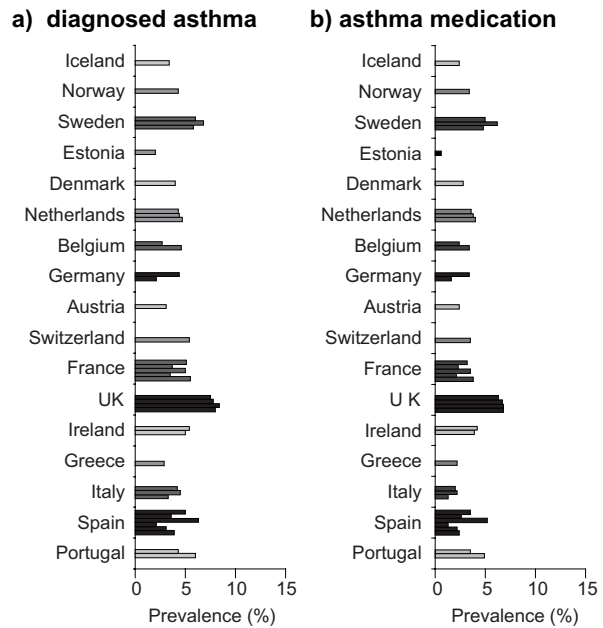
Diagnosed asthma was defined as answering 'yes' to either question 5 or 6 (an attack of asthma or taking asthma medication in the last 12 months). Figure 2 shows the variation in the prevalence of diagnosed asthma. This was generally lower than the prevalence of symptoms suggestive of asthma attacks, although the size of the difference varied. This suggests that there are variations in the extent to which people are labelled as asthmatic, which may reflect differences in illness behaviour, access to services or diagnostic fashion.

Figure 2 also shows the prevalences of taking medication for asthma, which ranged from 0.6% (Estonia) to 6.8% (Norwich, UK). This variation is not entirely explained by differences in the prevalence of symptoms, suggesting that there is variation across Europe in the type of medical care given to asthmatics.

Summary

- To make valid international comparisons of asthma prevalence, standardised study methods are required.
- Prevalence of symptoms rather than of diagnosed asthma gives more comparable information, due to differences in diagnostic criteria.
- There is wide variation between and within European countries in the prevalence of asthma-like symptoms, and of asthma medication use, in adults aged 20 to 44.
- Information about the variation in asthma and allergy symptoms in children in European countries will soon be available from the International Study of Asthma and Allergies in Childhood.

Figure 2: Prevalence of diagnosed asthma and treatment in the past 12 months



NB: Each bar corresponds to one centre in a country

Source: ECRHS



Footnote

Questions from the ECRHS postal questionnaire

1. Have you had wheezing or whistling in your chest at any time in the last 12 months?

IF 'NO', GO TO QUESTION 2, IF 'YES':

1.1 Have you been at all breathless when the wheezing noise was present?

1.2 Have you had this wheezing or whistling when you did not have a cold?

2. Have you woken up with a feeling of tightness in your chest at any time in the last 12 months?

3. Have you been woken by an attack of shortness of breath at any time in the last 12 months?

4. Have you been woken by an attack of coughing at any time the last 12 months?

5. Have you had an attack of asthma in the last 12 months?

6. Are you currently taking any medicine (including inhalers, aerosols or tablets) for asthma?

7. Do you have any nasal allergies including hay fever?

Reference: European Community Respiratory Health Survey. Variations in the prevalence of respiratory symptoms, self-reported asthma attacks, and use of asthma medication in the European Community Respiratory Health Survey (ECRHS). Eur Respir J 1996; 9:687-695.

We are grateful to Dr Lindsay Forbes for preparing this factsheet.

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