

Respiratory Symptoms (1986)

Instructions to Interviewers

The diagnosis of chronic bronchitis and other respiratory disorders during life is at present largely based on symptoms, together with other features of the clinical history, X-rays and/or lung function tests. It is well known, however, that the symptoms to which an individual admits may be influenced to some extent by the exact phrasing of the questions and by the person who asks them. To overcome some of these difficulties, this questionnaire provides a set of standard questions for enquiring about the presence or absence of common respiratory symptoms. The aim in completing it is to elicit the facts and to avoid bias due to different techniques of questioning. Provision is made for the inclusion of some basic ventilatory capacity measurements, but additional tests may be incorporated as appropriate to each investigation.

Training

Before embarking on a survey, the questionnaire and instructions should be studied and any difficulties discussed. Interviewers should apply the questionnaire to 10 or more subjects (such as hospital patients) who have at least some chest symptoms (since no difficulty arises with subjects who answer all questions with a confident 'no'). These interviews should be either witnessed by an experienced colleague or, better tape-recorded so that any mistakes or doubtful points can be corrected and clarified at leisure afterwards. Tape-recordings of a series of interviews based on the questionnaire are available and should be listened to if possible. These tapes are designed to illustrate difficulties arising in the interpretation of answers to the standard questionnaire during field surveys. A series of interviews is also provided which a potential interviewer can use to compare his own ratings of the responses given with those of the group of British workers responsible for the production of the tapes.

General instructions

Before starting to ask questions an interviewer should instruct subjects to answer simply 'yes' or 'no' to the questions. The actual printed wording should be used for each question. In most cases this should lead to a simple 'yes' or 'no' answer, which should be accepted and recorded. Occasionally the subject will express doubt about the meaning of the question or the appropriate reply. When this happens further probing will be needed. Repetition of the question is usually sufficient. Some guidance for dealing with the commoner difficulties is given below. When, after a brief explanation, doubt remains about whether the answer is 'yes' or 'no', the answer should be recorded as 'no'.

Recording the replies to the questions

The questionnaire has been set out to facilitate transfer of the data to punched cards. Most of the questions are of the 'yes'/'no' type and replies to these questions may be coded directly in the boxes provided. Instructions for coding

responses need to be defined by the survey planner before the survey begins. (Suggested coding: yes = 1, no = 2, not applicable = 8). Where the answer to a question is a number, eg the number of cigarettes smoked (Q.17b), the number may be recorded directly in the boxes provided. Where the question is of a more 'open' type, eg occupation, or brand of cigarettes smoked, the reply may be recorded in full and the coding performed later. In some studies, however, a coding schedule for these factors may be drawn up before the study begins (eg civil state: 1 = single, 2 = married, 3 = widowed, 4 = divorced, 5 = other) and replies may be recorded directly in the boxes provided.

Comments on individual items

Ethnic group: This should be defined in a way that is appropriate for the study, as reporting of respiratory symptoms depends to some extent on cultural and ethnic background.

Occupation and industry: Details of occupation that need to be recorded may vary with each survey and should be determined by those planning the survey before interviewing begins.

Cough and phlegm:

Question 1 Count a cough with first smoke or on first going out of doors. Exclude clearing the throat or a single cough.

Question 4 Count phlegm with first smoke or on first going out of doors. Exclude phlegm from the nose, count phlegm swallowed.

In those parts of the world where respiratory symptoms are most common at some other time of the year, the appropriate word should be substituted for 'winter'. Where there is no seasonal variation in respiratory symptoms the word 'winter' should be omitted. When night shift workers are interviewed, the words 'on getting up' should be used instead of 'first thing in the morning' in questions 1 and 4.

With regard to coughing during the day, in question 2, an 'occasional' cough may be considered normal and the answer should then be recorded as 'no'. It is impossible to define the limits of 'occasional' accurately, but to provide a rough guide it is suggested that single coughs of a frequency of less than six per day are 'occasional'. On the other hand, in question 5, 'occasional' phlegm production from the chest is considered abnormal if it occurs twice or more per day. The interviewer may use any suitable word that accords with local usage provided that it distinguishes phlegm from the chest or throat from pure nasal discharge. Some subjects admit to bringing up phlegm without admitting to coughing. This should be accepted without changing the replies to the questions about cough. A claim that phlegm is coughed from the chest but swallowed counts as a positive reply.

In questions 1, 2, 4 and 5 the word 'usually' should be emphasized. If one of the first two questions about cough (1-2) or one of those on phlegm (4-5) is answered clearly 'yes', questions 3 and 6 should be asked as confirmatory questions, and they should be asked at the point at which they are printed in the questionnaire (as in Example 1, questions 4 and 5).

Example 1

Q4 Interviewer: Do you **usually** bring up any phlegm from your chest first thing in the morning in the winter?

Subject: Yes.

Q5 Interviewer: Do you **usually** bring up any phlegm from your chest during the day, or at night, in the winter?

Subject: Yes, but only a little bit.

Q6 Interviewer: Do you bring up phlegm like this on most days for as much as three months each year?

Subject: No, not as often as that.

The interviewer should record these answers as follows:

Question 4: Yes, Question 5: Yes, Question 6: No.

If, however, a doubtful answer to question 1 or 2 or to question 4 or 5 is obtained (eg 'yes, sometimes') question 3 or 6 should be asked immediately as a probing question. If the answer to the probing question is 'no' the answer to the basic question should be recorded as if it had been 'no'. If a subsequent question in the same set receives a definite 'yes' the probing question should be repeated (see Example 2).

Example 2

Q1 Interviewer: Do you **usually** cough first thing in the morning in the winter?

Subject: Yes, sometimes.

Q3 Interviewer: Do you cough like this on most days for as much as three months each year?

Subject: Oh no, not most days.

Q2 Interviewer: Do you **usually** cough during the day, or at night, in the winter?

Subject: Well from time to time.

Interviewer: Do you cough as much as six times a day?

Subject: Yes, more than that I'd say.

Q3 Interviewer: Do you cough like this on most days for as much as three months each year?

Subject: Well, not every day.

Interviewer: More often than not?

Subject: Yes, I'd say so.

The interviewer should record these answers as follows:

Question 1: No, Question 2: Yes, Question 3: Yes.

In question 7a the word 'increased' should be used only for subjects who have already admitted to some habitual cough and phlegm.

Breathlessness: In order to increase uniformity between surveys carried out at different seasons, it is suggested that the question on breathlessness should refer to the time of the year when breathlessness is at its worst. 'Hurrying' implies walking quickly. If the subject is disabled from walking by any condition other than heart or lung disease this should be recorded.

Wheezing: If this question is not understood, vocal demonstration of wheezing by the interviewer is often helpful. No distinction is made between those who only wheeze during the day and those who only wheeze at night. The word 'asthma' should not be used.

Chest illnesses: Asking about 'usual activities' is designed to avoid biases which are known to arise from sickness benefit considerations if subjects are asked about illnesses interfering with their work.

Smoking: Questions on smoking are essential in any study on respiratory symptoms, yet the reliability of answers has diminished over time. People are more likely to deny that they smoke than in the past and also to underestimate the amount smoked. With the change in cigarette types it is

important also to know the tar and nicotine yields of the product. Since subjects are unreliable in reporting such details, investigators should attempt to collect an empty cigarette pack from the smoker in order to identify the brand positively and thence to obtain tar/nicotine yields from published lists. Although a question on inhaling is retained, this too is not reliably answered. The actual up-take of smoke components is determined by the individual's smoking pattern as well as by the amount and type of product smoked, and investigators are encouraged to use an objective method of assessment, eg there is a simple test for nicotine metabolites in urine samples (Ellard et al., Thorax 1985, 40, 351-357), and other tests based on blood or saliva samples are available.

Those who smoke cigarettes must also be asked about other forms of smoking. 'Small' cigars are those which are the same size as cigarettes: all cigars larger than cigarettes should be classified as 'other'. Amounts of tobacco (for pipe smoking) or hand-rolled cigarettes should be recorded in units appropriate for each study: the form is laid out for grams (1 ounce = 28 g). Specific enquiry is made about smoking habits at weekends because some people smoke more or less at these times than during the week, and if necessary allowance should be made for this when assessing the weekly consumption.

An ex-smoker is defined as anyone who has smoked as much as one cigarette per day (or one large cigar per week or an ounce (=28g) of tobacco per month) for as long as a year and who at the time of the interview had not smoked for 6 months or more.

Ventilatory capacity: The exact procedure to be adopted varies with the type of instrument used, and training sessions are required before embarking on a survey. Spirometric readings may include the forced expiratory volume in one second (FEV₁) and the forced vital capacity (FVC) from a number of successive blows. The recommended procedure is to obtain and report five technically satisfactory blows from each subject, then using the three highest FEV's and the three highest FVC's (not necessarily from the same blows) for the calculation of mean values, though other criteria may be adopted providing they are specified and adhered to within any given series of studies. The temperature of the instrument or in its surroundings is required to correct the values to BTPS: barometric pressure will normally only be required if measurements are made at a great altitude. Conventions for measuring and recording height and weight should be established carefully: eg height may be recorded without shoes, to the nearest cm below, and weight with light clothing to the nearest 1/10th kg below.

Peak expiratory flow rates (PEFR) are usually measured on a separate instrument, and they do not require temperature correction. Again the exact procedure will depend on the instrument selected for the survey, but two practice blows should be made, followed by three technically satisfactory ones.

Further information on the use of the questionnaire

This information sheet provides basic guidance to research workers concerned with the planning and conduct of surveys. The items available are as follows:

Questionnaire on respiratory symptoms (1986).

Instructions to Interviewers.

Enquiries about supplies of these items, or about training tapes and other background material related to earlier versions of the questionnaire should be sent to: Publications Group, Medical Research Council, 20 Park Crescent, London WIN 4AL.