

- 1989;67:926–32.
- 29 Wagenmakers AJM, Kaur N, Caokley JH, Griffiths RD, Edwards RHT. Mitochondrial metabolism in myopathy and myalgia. In: Benzi G, ed. *Advances in myochemistry*. London: John Libby Eurotext, 1987:219–30.
- 30 Sargeant AJ, Davies CTM, Edwards RHT, Maunder C, Young A. Functional and structural changes after disuse of human muscle. *Clin Sci Mol Med* 1977;52:337–42.
- 31 Barnes PRJ, Taylor DJ, Kemp GJ, Radda GK. Skeletal muscle bioenergetics in the chronic fatigue syndrome. *J Neurol Neurosurg Psychiatry* 1993 (in press).
- 32 Kutsuzawa T, Kurita D, Haida M, Shioya S, Yamabayashi H. The effect of oxygen on the skeletal muscle metabolism in patients with chronic respiratory impairment. *Proc Soc Magn Reson Med (10th Meeting)* 1991;536.
- 33 Wilson JR, Coyle EF, Osbakken M. Effect of heart failure on skeletal muscle in dogs. *Am J Physiol* 1992;262:H993–8.
- 34 Makitie J, Teravainen H. Histochemical changes in striated muscle in patients with intermittent claudication. *Arch Pathol Lab Med* 1977;101:658–63.
- 35 Sjostrom M, Ancquist K-A, Rais O. Intermittent claudication and muscle fibre fine structure: correlation between clinical and morphological data. *Ultrastruct Pathol* 1980;1:309–26.

Adventitia

In the late 1950s and early 1960s a number of epidemiological studies were undertaken to ascertain why the UK had such a high rate of mortality and morbidity from chronic bronchitis compared with other European countries and the USA. I collaborated with Donald Reid, Geoffrey Rose and Charles Fletcher, and we applied the methods developed at the time which consisted of the MRC Respiratory Disease Questionnaire, and simple methods of measurement of lung function, blood pressure, and ECG.

The problem with an assessment of the distribution of disease is that one has to study a great many individuals if one wishes to take into account factors such as occupation and social standing, and to separate the effects of personal factors such as smoking from those of the environment. Donald Reid pioneered the use of occupational groups to undertake such studies. He studied Post Office and Telephone workers in the UK to examine the effects of the environment upon their health.

We extended these studies to the USA during the time that I spent working at Johns Hopkins University. I was responsible for undertaking studies in three locations with widely differing socioeconomic and geographical characteristics: namely, Westchester (New York), Washington, and Baltimore, to try to determine whether there really was a difference in the prevalence of chronic bronchitis between individuals doing the same work in the UK and the USA, after taking into account their smoking habits.

In the UK I, together with Donald Reid, had been responsible for the negotiations with the Post Office top management and unions and readily obtained the willingness of the management to cooperate with our study. When I went to the USA I therefore talked first with the medical side of the American Telephone and Telegraph Company, who were the comparable employer to the Telephone branch of the Post Office in this country.

The contrast, however, was stark. The medical branch was extremely helpful and was willing to take part in any of the studies

but, unfortunately, had far less influence than the equivalent medical branch in this country. My meetings with the management in the USA, however, were pretty frosty. Following the British example I also went to see the union and was fortunate in getting to see the head of the Communication Workers of America direct in Washington—a man called Joe Beirne. The contrast with the head of the union in Britain was far greater than any other difference between our two countries. Beirne's office was palatial. As soon as I arrived I was served with an excellent cup of tea by a waiter from a trolley. During our conversation he received a telephone call from President Kennedy who wanted his help on something. I was not asked to leave the room. Beirne's response to my request for help was immediate and complete. When told that the management were not exactly cooperative his response was that if the management refused to help, the union would. Whatever happened, he said, the survey must take place. He promised that if necessary the union would provide the premises and would ensure that all the relevant communication workers would participate, whatever the management said. That message, when transmitted to the management, immediately produced a positive response. We were informed that, of course, we could use the work locations and that all possible assistance would be provided. As a result our response rate was outstanding.

The examinations were all very successful. I was the common examiner between the UK and the USA and therefore had to examine a sizeable proportion of Americans. The only real problem was the difference in accent between the British and Americans, the two questions that really caused difficulties being those on asthma and phlegm production. I had received many strange answers to my demand of "Have you ever had asthma?" until eventually one participant said "No, I never take those!" I then realised that they had all thought that I was talking about aspirin rather than asthma, so I had to adapt my pronunciation accordingly!

W W HOLLAND