

So far as I am aware, however, it does not contain a single coal mine! Inclusion of figures from areas such as these does little to clarify the problem. Since 1968 the registrar general has issued individual mortality statistics for individual towns in England and Wales. Thus it is now possible to compare not only one area with another, but also variations between individuals in the same community, according to occupations etc. I have used these statistics in presenting the above data. This seems altogether simpler, more accurate, and less confusing than the method chosen by Rooke. Certainly it will need more than Heasman's "correction factor," assumptions about "trends," or differences in smoking habits, to explain why, in this town, the chances of dying from cancer of the lung are almost doubled if a man also has pneumoconiosis.

Finally, 1978 offers little respite. During that year I performed 21 necropsies on cases of pneumoconiosis. Six of them also had cancer of the lung.

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## References

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REPLY—We are grateful for the opportunity to reply to the points raised by Dr Mooney in his letter concerning our paper. Dr Mooney lays stress on the microscopic demonstration of pneumoconiotic foci in lung tissue and implies that more cases in our series should have been diagnosed as having some degree of pneumoconiosis. As pointed out in the discussion section of the paper, even if all our cases were assumed to have pneumoconiosis the overall prevalence

of carcinoma in the whole group was 11.4%, which is still no greater than in all male deaths in the area.

A higher proportion of miners' deaths are investigated at necropsy than in the general population because compensation is at stake. As Heasman (1962) showed, the relative infrequency of necropsies may lead to an underestimate of 20% of deaths due to lung cancer in the general population. For reasons given in the text of our paper we do not claim to have a complete sample of all miners who died in South Lancashire but Dr Mooney's sample is even less complete, and he makes no mention of the prevalence of carcinoma of the lung he found in coalminers without pneumoconiosis.

His mention of Liverpool as having one of the highest incidences of lung cancer in the British Isles, but having no coal mines, is surely a point in favour of our findings rather than of his. With regard to his criticism of the statistics we used for comparison we refer him to p 233 of our paper to show that we also made use of local as well as national sources.

With reference to smoking we showed that in those whose smoking history was known 91.8% had smoked and that of the 64 lung cancer cases where smoking history was known, 96.8% had smoked. Our series was relatively small, but considerably larger than Dr Mooney's for the years studied; a much larger study (Jacobsen, 1976) of more than 11 000 British miners found that cigarette smokers had a nearly eight-fold excess of lung cancer deaths when compared with non-smoking miners.

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