

10th July, 1957.

Dear Mr. Gibson,

Thank you for your interesting letter. The question of inhaling has not been altogether neglected, and has had an important influence on my own thoughts on this matter.

In the first test organized by Hill and Doll, based on the smoking habits and history of a number of patients suffering from cancer of the lung, in comparison with patients with other conditions, a question about inhaling was included, with the curious result, somewhat disappointing to the investigators, that the cancer cases contained fewer, and not more, inhalers than the cases without cancer. This was the more striking since frequency of inhalation increases with the numbers of cigarettes smoked, so that, by throwing into one class a wide range of numbers of cigarettes consumed, the dissociation of lung cancer from the practice of inhaling can be largely masked or even reversed. At this stage Doll and Hill evidently felt the need to avoid drawing the prima-facie conclusion that the practice of inhaling was a valuable prophylactic against lung cancer. They suggest that the

patients did not clearly know the meaning of the word 'inhaling', a fact, if true, which they ought to have discovered at an earlier stage and not only after this question had produced an apparently anomalous answer.

The fact seems to me of great importance since the inferences (a) cigarettes induce lung cancer, and (b) inhaling protects from lung cancer, stand on exactly the same observational basis, and logically one can accept both or neither. It is hard to justify accepting one and not the other; for my part, indeed, I should accept neither.

It was, in my opinion, most unfortunate that in the second large enquiry, namely that concerned with the medical profession, undertaken by Hill and Doll, this question on inhalation was omitted. Indeed in this case the escape clause, that the meaning of the word could not be understood, would not have been available, and the investigators might have been forced to abandon the conclusion as to the causation of lung cancer by smoking cigarettes, at which they had somewhat prematurely jumped, and to which they had rather prominently committed themselves.

So far as the scientific business of determining the causes of lung cancer, and especially of its recent most alarming increase, is concerned, this supposed discovery about cigarettes

seems to be nothing but a red herring which will obscure our understanding for a good many years, by diverting research into unrewarding channels.

Sincerely yours,

I expect this will explain why "inhalation" is not prominent in the recent propaganda.