

# LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE

(UNIVERSITY OF LONDON)

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Department of Medical Statistics  
and Epidemiology:

PROF. A. BRADFORD HILL, C.B.E., F.R.S.

5th August 1960

Dear Dr. Blackburn,

Thank you very much for your letter. I am very sorry to have to admit that I have temporarily mislaid it: this is my last day in the department, and I shall shortly be on my way to the Johns Hopkins. Your letter has, I fear, got included in some papers that have been sent on in advance. I think I can remember your questions. If any have to remain unanswered until I get to Baltimore, please accept my apologies.

You are welcome to quote from the Working Paper if you wish. I think that the best reference to its source would be 'Working Paper No. 7, London Conference of U.S./U.K. Board of Studies in Cardio-respiratory Disease'.

I am in process of writing up some of the material now. The main emphasis will be on the problems of diagnostic criteria in angina. The questionnaire itself will probably be described; but I think it must still be regarded as provisional. Detailed criticisms would of course be very welcome.

My personal opinion, unsupported by any facts other than those which are generally available, is that one must have in epidemiological surveys standardisation both of diagnostic criteria and of methods. I do not think that the Kinsey techniques are applicable to attempts to compare prevalences in different populations. I think that the epidemiologists's diagnostic criteria may often need to be simpler than the clinician's, because they have to be capable of being embodied ~~to~~ in a questionnaire. I think that in achieving reproducibility of results between observers

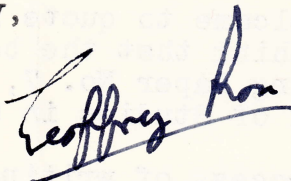
the chief problem is how to avoid the need for probing questions.

I have no hard facts on inter- or intra-observer reproducibility with the angina questionnaire. We have just completed a survey of about 300 transport workers here in London. Three observers used the questionnaire, each on his own near-random sample. There were no obvious important differences in technique, as judged by the number of positives (too small for statistical assessment in this respect) or by listening afterwards to tape recordings of each other's interviews. The chief fact that emerged was that among bronchitics it is common to meet a chest pain which is seemingly indistinguishable clinically from angina, but which is almost certainly not angina. (The incidence of cough and spit among the men with 'angina' was much too high, as judged by the incidence in either the general sample or those with ischaemic E.C.G. tracings.)

I cannot think just now of any other information we have which would be of use to you. But please write if what I have been saying still leaves obscurities. My address will be:

Dept. of Epidemiology  
Johns Hopkins/School of Hygiene & Public Health  
University  
615 North Wolfe Street  
Baltimore 5, Md.

Yours sincerely,



P.S. Please don't blame my secretary for the appalling typing. I bear personal responsibility.