15th January, 1959.

My dear Bradford Hill,

Thank you for your letter of January 14th. I think you have sent me what I want, but as it is all expressed in percentages the actual numbers inferred from these will need checking again at your end since there are, of course, the usual discrepancies (e.g. no whole number out of 9 is 20%), so I am enclosing the ten four-fold tables that result for verification. The note on your table to the effect that "Ounces of tobacco have been expressed as being equivalent to so many cigarettes" points to quite a serious trouble, for pipe smokers do not ordinarily inhale, and have in fact less cancer of the lung in these tables, so that the mixture of pipe and cigarette smokers in the way indicated would tend surely in the direction of a false positive association between inhaling and cancer.

On the basis of the actual classification of the individuals concerned into the 40 classes now available, it should be easy, as you have the hand sortings available, to say how many in each of these 40 classes are not in fact cigarette smokers.

I do not think that a test of significance as suggested on page 744 (1950) is possible without these sub-divisions.

Sincerely yours,

Enc.

Prof. A. Bradford Hill, O.B.E., F.R.S.

Non daily ...

		1-5		5-15		15-25		25-50		>50	
		I	N	I	N	I	N	I	N	I	N
♂♂	Cancer	7	17	141	67	133	63	96	78	21	24
	Control	17	21	162	80	157	44	74	44	~~17~~ 16	~~4~~ 7
♀♀	Cancer	3	3	7	8	7	5	5	3	0	0
	Control	2	10	2	7	6	0	0	0	1	0

Cancerous inhalers
ob - nf   Smthg

− 2.2903   3.490 ✓
+ .9467   ~~2.941~~ 24.604
− 10.1738   ~~+1554~~ 19.537
− 5.3014   ~~5.657~~ 17.460
− ~~+~~ 3.4852   3.776
− ~~13.335.6~~   _____
− 20.3040 ✓   68.867
2.447 SD   5.2981

+ 1.3333
+ 1.3750
− 1.2778