

## TOBACCO AND MORTALITY

SIR,—Your Nov 2 editorial (p 989) states that “the medical evidence against tobacco has long been cast-iron”, and that “Smoking has ceased to be a health controversy and is now primarily a political issue that must be tackled by political means”. Are you advocating the suppression of further discussion, in favour of anti-smoking propaganda and legal restraints on the tobacco industry? May I make a last appeal for an almost, but perhaps not quite, lost cause?

The “cast-iron” evidence you refer to is not so much medical as purely statistical, and it is not against tobacco but cigarette smoking only. The most comprehensive prospective survey of smoking habits was carried out in the United States by Culyer Hammond.<sup>1</sup> His findings give the following figures for all-causes death rates for men aged 45–74, standardised on the population of England and Wales in 1971 and expressed, for various categories of smoking, as a percentage of the rate for non-smokers:

<i>Type of smoking</i>	<i>Total no of deaths</i>	<i>Death rate (as % of non-smoker death rate)</i>
<i>Never smoked cigarettes</i>		
Non-smokers	3702	100
Pipe only	432	100
Cigars only	684	103
<i>Cigarettes only, started aged &gt;25</i>		
1–9	112	115
10–19	185	150
20–39	306	147
≥40	48	111
<i>Cigarettes only, started aged 15–24</i>		
1–9	423	164
10–19	1081	179
20–39	3267	191
≥40	689	223
<i>Cigarettes only, started aged &lt;15</i>		
1–9	81	225
10–19	209	229
20–39	656	216
≥40	174	208

There are three main conclusions to be drawn from these figures which have been calculated from the follow-up of some 819 672 person-years of Hammond's survey:

(1) The death rates for non-smokers, pipe smokers, and cigar smokers are virtually identical. Pipe and cigar smoke is similar in chemical composition to cigarette smoke except that it is stronger. Nevertheless it comes out statistically blameless.

(2) There is a remarkably strong association between precocious cigarette smoking and an increase in death rate 30–60 years later. Men smoking less than ten cigarettes a day who started under the age of 15 have over twice the mortality of men who smoke 40 or more a day but who did not start until they were 25.

(3) Only the middle of the three groups of cigarette smokers shows a modest increase in death rate with heavier consumption. In both the early and late starters those who smoked 40 and over actually had lower death rates than those who smoked less than 10 a day.

None of these findings can be reconciled with the theory that smoking is a cause of death. If there is any lethal chemical in tobacco smoke its effects should be manifest in all forms of smoking and should always be related to the quantity smoked. The peculiar association between early cigarette smoking and higher death rate could very well be spurious and due to a bias from differences in social and economic environment. The neglected child-smoker comes from a home very different from that of the carefully nurtured youth who is made or persuaded to wait until he is grown up.

These are only a few of the many discrepancies in the case against tobacco as a major cause of death. When the alleged link with lung cancer is considered one finds that only about 20% of women's deaths from the disease are even associated with smoking,<sup>2</sup> that lung cancer mortality in different countries and districts is associated with urbanisation rather than cigarette consumption,<sup>3</sup> and that its vast increase in the past 50 or 60 years has coincided, not with smoking over the period but with the new factor in the environment of atmospheric pollution by motor exhaust fumes, especially those of the diesel engine.<sup>4</sup>

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The true cause of the lung cancer pandemic has not yet been identified and an urgent programme of research and statistical investigation is imperative. Emotional denunciation of the cigarette habit is not going to be the answer, and making tobacco the scapegoat is merely prolonging the present state of medical ignorance and prejudice.

Blue Moon,  
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2. Myddelton G. Mortality from lung cancer. *Lancet* 1976; i: 740.
3. Myddelton GC. Deaths from smoking. *Br Med J* 1964; ii: 758.
4. Myddelton G. Carcinoma of bronchus. *Lancet* 1965; ii: 796.