

Personal Paper

Comment on the Hunter Committee's second report

M J JARVIS, M A H RUSSELL

The Independent Scientific Committee on Smoking and Health (the Hunter Committee) was first established in 1973. Its terms of reference were wide—to advise on the “scientific aspects of matters concerning smoking and health,” in particular:

(1) “To receive in confidence full data about the constituents of cigarettes and other smoking materials and their smoke and changes in these; and to release to *bona fide* research workers for approved subjects such of the above as is agreed by the suppliers of it.”

(2) “To review the research into less dangerous smoking and to consider whether further such research, including clinical trials and epidemiological studies, needs to be carried out.”

(3) “To advise on the validity of research results and of systems of testing the health effects of tobacco and tobacco substitutes and on their predictive value to human health.”

After seven years and at least 350 000 more deaths due to smoking the second report of the Hunter Committee has just been published.¹ It seems an appropriate time to consider the contribution that this committee has made. It has to be said at the outset that, in the face of the size and the urgency of the problems posed by smoking, its record is disappointing in the extreme.

Its first report² in 1975 was concerned largely with establishing guidelines for testing tobacco products containing tobacco substitutes. Cigarettes containing tobacco substitutes now account for less than 1% of the market so that the first report has turned out to be largely irrelevant to the immediate problems of smoking in Britain. Indeed, a poignant paragraph in the second report notes that a proposed long-term study of the effects on human smokers of cigarettes containing substitutes could not be implemented because there were not enough smokers smoking them. We cannot blame the Hunter Committee for that, but it does point to a failure on the part of the tobacco industry at that time adequately to consider the smoker as well as the product smoked. The Hunter Committee has not learned from this failure, but has repeated it in its second report.

The second report, published five years and 19 meetings after the first one and after sitting for 13 months on the desks of the UK Health Ministers, is in some ways a remarkable document. It is remarkable for its brevity, for what it does not contain as well as what it does, and for the way it totally fails to measure up to the urgency of the smoking problem (as noted by Dr J Donald Ball in his dissenting minority report). Most of all it is remarkable for the stunning naivety of its implicit model of smoking behaviour.

In addressing the issue of the development of “lower risk”

cigarettes the report, with some complacency, pats the industry on the back for achieving a reduction in average tar yield from 31.4 mg per cigarette in 1965 to 17.4 mg in 1977 with parallel decreases in nicotine yields, and recommends “further substantial reductions in tar yields” in the future. Lower risk cigarettes are equated with cigarettes with lower tar and nicotine yields. If people smoked cigarettes in the same way that smoking machines do, this would indeed be the case. But there is much evidence that they do not.³⁻⁶

Smoking machine to smoker

The tendency for smokers to regulate their smoke intake has been ignored by the Hunter Committee. The committee's thinking appears to be dominated by an obsession with machine-smoked yields. On the basis of machine-smoked yields the smoking of large cigars should be the most deadly form of tobacco use, but epidemiological studies show them to be far less harmful than cigarettes. One would have hoped that this discrepancy would have made the Hunter Committee more cautious about extrapolating too directly from smoking machine to smoker and that it would have made it place as much emphasis on measurements of the smoke intake of smokers as it has placed on the smoke output of cigarettes.

Nowhere in the report is there any reference to the numerous published studies on the tendency of smokers to modify their smoking pattern in response to changes in the tar and nicotine yields of their cigarettes. More serious is the omission of any reference or recommendation which shows any awareness whatsoever of the importance of measuring the smoke intake of smokers using blood nicotine,^{5 7} blood carboxyhaemoglobin,^{8 9} or blood thiocyanate^{10 11} concentrations, or the well-established, simple, and inexpensive indirect measure of expired air carbon monoxide.¹¹

A recent study of 330 cigarette smokers who had been smoking their usual brand in their usual way showed that blood nicotine concentrations were similar in smokers of high tar plain cigarettes (nicotine yields 1.9 mg), middle tar unventilated filter cigarettes (1.3 mg nicotine), and low tar cigarettes with ventilated filters (0.8 mg nicotine).¹² Since tar and nicotine yields are highly correlated (>0.9) it may be inferred that the intake of tar to the lungs of these three groups was also similar.

Such results come as no great surprise to anyone who has been reading the tobacco-smoking publications. These suggest that an approach aimed simply at further reductions in tar and nicotine deliveries will do little to reduce the dangers of smoking. This is not only because smokers compensate by increasing inhalation so as to leave their smoke intake relatively unchanged, but also because a point is reached where reduced deliveries meet with reduced consumer acceptance (Lord Hunter indeed touches on this point in a covering letter to the secretaries of state). There is not much point in providing cigarettes that no one, other than non-inhalers, will smoke. There is evidence that we are already approaching such a barrier. The average sales-

Addiction Research Unit, Institute of Psychiatry, Maudsley Hospital, London SE5 8AF

M J JARVIS, BSC, MPHIL, clinical psychologist

M A H RUSSELL, MRCP, MRCPsych, senior lecturer and consultant psychiatrist

weighted nicotine yield has shown no decline since 1974, and the proportion of smokers smoking low tar, low nicotine cigarettes has likewise become stuck at around a mere 11%. The extent to which this is due to lack of nicotine, or tar, or some other factor is still unknown but crucial. It has been suggested^{8 13} that a low tar, low CO, but medium nicotine cigarette might reduce tar and CO intake more than occurs with low tar, low CO, low nicotine cigarettes. It might also be more acceptable to smokers. Present evidence supports the view that a new approach in this direction would be worth investigation. It is astonishing that a committee appointed to "review the research into less dangerous smoking" should largely ignore this crucial area (again Dr Ball in his minority report shows some awareness of the problem).

Catch-22

If the Hunter Committee is unaware of the importance of behavioural factors and of the role of nicotine the tobacco industry is not. The report notes that some companies "have suggested that the addition of natural nicotine or nicotine salts to ultra low tar and nicotine products would produce a more acceptable smoke for dependent smokers." The committee's response to this could hardly be more lukewarm or disappointing. It comments that "if this resulted in an increased dependence among smokers, then it would be difficult to approve it." Yet it is precisely *because* so many smokers are highly dependent on cigarettes that the argument for lower risk cigarettes gains its force. This is in fact recognised earlier in the report: "Many people who feel they cannot yet give up smoking have a strong desire to smoke less dangerously either by smoking fewer cigarettes or lower risk cigarettes. The committee believes that strenuous efforts should continue to be made to meet this desire." The position is, in effect, Catch-22. The argument runs something like this: many smokers want to smoke less dangerously because they cannot give up, but must not be given medium nicotine low tar cigarettes if these mean they cannot give up.

The committee's other comment on nicotine-spiked cigarettes is equally fatuous. It is stated that "toxicity testing in animals" and "other studies in man" (unspecified) will probably be required before such cigarettes are permitted. Why a cigarette containing, say, 4 mg tar and 1 mg nicotine should require toxicity testing when currently available cigarettes containing at least as much nicotine and far more tar do not is unexplained and is inexplicable.

Publication of CO yields

Since the publication of CO yields of cigarettes is recommended by Dr Ball in his minority report, we must assume that this step was considered and rejected by the whole committee, which nevertheless gives no reasons for this. It is difficult to imagine what those reasons might have been. The committee's terms of reference empower it to "release to bona fide research workers for approved subjects" data on smoke constituents "agreed by the suppliers of it." The Government Chemist has for some time been routinely measuring the CO yields as well as the tar and nicotine yields of cigarettes, and there do not appear to be any undue technical difficulties of measurement. Indeed, the first report of the Hunter Committee specifically noted that the method has "proved very satisfactory."

The World Health Organisation has urged the publication of CO yields in two reports.^{14 15} CO yields are published regularly in many other countries. Medical scientists in Britain have been clamouring for CO yield data.^{16 17} There do not

seem to be any grounds for withholding publication. One is forced to the conclusion that the Hunter Committee's decision not to recommend publication did not stem from technical considerations.

Finally, what about other harmful constituents? The committee's response on this issue is to procrastinate. It states briefly that it "proposes to ask the industry to provide full relevant data to assist in reviewing and evaluating the constituents of smoke so that the committee is better able to advise the Secretaries of State about the desirability or otherwise of setting levels for some of these constituents. Although it lists about a dozen potentially harmful constituents including, for example, oxides of nitrogen, hydrogen cyanide, benzo(a)pyrene, polycyclic aromatic hydrocarbons, and nitrosamines, no recommendations are made for the publication of these data. Yet current cigarettes show enormous variation in their yields of some of these products. Current brands, for example, have an eight-fold variation in delivery of oxides of nitrogen,¹⁸ which the committee acknowledges "contribute to the overall pathological changes induced by smoke in the lung parenchyma leading to emphysema." How much longer must we wait for the committee to release the data, let alone give advice on control and regulation of all these harmful substances? If its shilly-shallying over CO yields is anything to go by, we are in for a long delay.

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