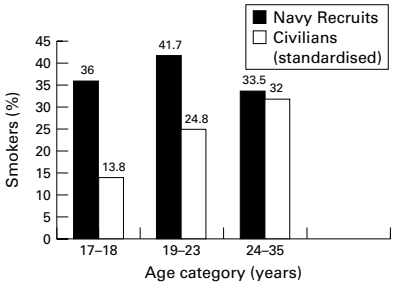

Comparison of smoking rates.

women, stratified by age category, is presented in the figure. Comparisons for women aged 17–18 years and those aged 19–23 years were statistically significant, with navy women recruits having higher rates of current smoking in both of these age strata. Navy women recruits who were 17–18 years old had over 2½ times the smoking rate of civilians, and women aged 19–23 had over 1½ times the rate of civilians. Smoking rates were not significantly different for recruits and civilians in the 24–35 age range.

Although this analysis cannot rule out the role that the navy environment may play in "producing" smokers, it provides more definitive evidence that the navy attracts young female smokers from the outset. Further, this high rate of smoking cannot be accounted for by sociodemographic characteristics. The specific factors that might account for the high rate of smoking among women entering the navy are not known. Certain "unconventional" personality factors and behaviours including risk taking, sensation seeking, rebelliousness, and self confidence have been associated with smoking in young women,[13 14] and perhaps these same characteristics are associated with enlisting in the military. In addition, there may be differences in geographical location and family/peer patterns of tobacco use between women who choose to join the navy and the general population. Additional work is needed to explore reasons for the high rate of smoking among incoming military recruits to inform strategies for effective cessation.

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Eliminating the nicotine in cigarettes

EDITOR,—The report of the American Medical Association (AMA), "Reducing the addictiveness of cigarettes", was written by well respected tobacco experts.[1] This time, however, the position taken by the AMA and the British Medical Association (BMA) did not reassure us and the AMA position is even inconsistent with statements of two of the authors made two months earlier. In John Slade's and Jack Henningfield's paper presented in Washington, DC on 8–9 April 1998, they said: "Nicotine reduction is an option that should kept be open and carefully explored because of its potential for public health benefit. It is far from being a perfect policy option, however, and . . . there are many other useful things the FDA should do in regulating tobacco products without ever controlling or limiting nicotine itself." In fact, both authors listed a whole range of concerns that needed to be explored, and concluded that much more research should be conducted before any nicotine reduction strategy is considered for implementation.[2] Only two months later, the AMA adopted its resolution to phase out nicotine and provided answers for some of the concerns raised, such as compensatory smoking, smokers assistance, and fear of the black market.

We feel that they were unable to address properly these extremely complex concerns. Nicotine is the driving force behind smoking. A cigarette without nicotine is a different product and nicotine-addicted smokers will still look for their nicotine dose. The AMA authors are aware of this barrier and proposed to increase the range and accessibility of nicotine-delivering medications. This proposal will only partly resolve the problem, as not all smokers want to stop smoking, not all smokers are willing to use non-tobacco nicotine replacement products, and not all smokers who follow a nicotine replacement treatment will eventually stop smoking. Cigarettes without nicotine are a prohibition-type solution that will automatically create an illicit market.

In addition, black market sales were not well addressed in the AMA report. The actual problem of worldwide smuggling cannot be compared with the situation where cigarettes no longer contain nicotine: it would be rather naive to think that "improved cooperation of manufacturers" would ever take place if nicotine were totally banned. Without nicotine there will be no market for cigarettes and without a market there will be no more tobacco industry. Of course the industry will not collaborate: they will continue to organise smuggling from several countries to supply the millions of nicotine-addicted smokers unwilling to accept the prohibition policy of the AMA. According to the authors, "even if there was a contraband market, the size and health impact of that market would be less than the current cigarette market". Our concern is with the notion that only law enforcement will lead to fewer sales. The downside would be a society where police prosecute smokers of nicotine-containing cigarettes, as were alcohol drinkers in the United States in the 1920s, with all the attendant problems. The AMA resolutions are not a dream to resolve the tobacco problem; they may become a nightmare.

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In reply,—The letter by Joossens and Hayes on our proposal to gradually remove the nicotine from cigarettes[3] raises a misconception about our views that we would like to correct. We believe that requiring the elimination of nicotine enhancers and substantial reductions of nicotine from commercially marketed cigarettes is a strategy that should only be implemented in the context of a range of other essential actions as described in the report. In fact, a major advance of our report, beyond the earlier proposal by Benowitz and Henningfield,[4] is that a nicotine reduction strategy must be done as part of an overall strategy that considers issues ranging from education, treatment, legislation, and meaningful tobacco product labelling, to the need for supportive research and surveillance to guide the process as well as the importance of alternative products being available. It should be noted that the recommendation referred to by Joossens and Hayes was the fifth of eight and it was stated as follows: "The AMA encourages the FDA [Food and Drug Administration] to assert its authority over the manufacture of tobacco products to reduce their addictive potential at the earliest practical time, with a goal for implementation within five to 10 years." How long such a process might actually take would depend on many factors as described in the report.

The view that such a nicotine reduction action is conditional on addressing the issues raised in the report is consistent with the earlier conclusions expressed by Slade and

Henningfield which similarly argue for a comprehensive approach to reducing the death and disease caused by tobacco[5] In that sense, the proposal is no more, or less, conditional, than suggestions to reduce the "tar" yield of smoke (which depends in part on prior decisions about how to measure "tar" and what "tar" is) or the dictates of the European Community and World Health Organisation which have successfully reduced the widespread marketing of tobacco product types—for example, Swedish *snus* or certain American moist snuff preparations—in countries that did not already have them marketed on a widespread scale. Our proposal may be more complex than the aforementioned examples, but the concept is the same, namely to restrict the currently practically unfettered ability of the tobacco industry to develop and market products that maximise addictive effects, regardless of other health consequences. As discussed earlier,[4] the proposal may seem drastic to some, but the present course of more than 400 000 premature deaths in the United States each year, and rapidly escalating morbidity and mortality globally, is a drastic, unprecedented epidemic that could be checked. Other issues raised by Joossens and Hayes were discussed in the Spring 1999 issue of *Tobacco Control*.[6]

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"Not for all the tea in China . . ."

EDITOR,—When Helmut Geist wrote the article on deforestation related to tobacco farming,[1] comprehensive data on China had not been located. Since then, in 1999, the state-produced *1998 China statistical yearbook* published agricultural statistics for the 20-year period from 1978 to 1997 on total sown areas of farm crops, with breakdown figures for tobacco (and the amount of this tobacco which is flue cured), grains, rice, soy, tubers, cotton, vegetables, and tea.

Table 1 China: total sown areas of farm crops (Source: "1998 China statistical yearbook", pages 382, 400, 402)

Year	Total sown area ('000 hectares)	Sown area of grain ('000 hectares)
1978	150 104	120 587
1980	146 379	117 234
1985	143 626	108 845
1986	144 204	110 933
1987	144 957	111 268
1988	144 869	110 123
1989	146 554	112 205
1990	148 362	113 466
1991	149 586	112 314
1992	149 007	110 560
1993	147 741	110 509
1994	148 241	109 544
1995	149 879	110 060
1996	152 381	112 548
1997	153 969	112 912

Table 2 China: tobacco production by year (Source: "1998 China statistical yearbook")

Year	Tobacco ('000 hectares)	Amount flue cured ('000 hectares)
1978	784	613
1980	512	397
1985	1313	1077
1986	1125	895
1987	1128	913
1988	1555	1304
1989	1798	1503
1990	1593	1342
1991	1804	1562
1992	2093	1849
1993	2089	1835
1994	1490	1302
1995	1470	1309
1996	1853	1683
1997	2353	2161

This data are important, as China is the largest producer as well as the largest consumer of tobacco in the world. A third of all the cigarettes smoked in the world are smoked by over 300 million smokers in China.

Table 3 Tobacco production by province (Source: "1998 China statistical yearbook", page 402)

Province	Tobacco ('000 hectares)	Amount flue cured ('000 hectares)
Beijing	0.1	ND
Tianjin	8.9	6.9
Hebei	16.1	16.0
Shanxi	15.8	8.8
Inner Mongolia	8.1	13.1
Laoning	33.2	29.0
Jilin	42.9	32.2
Heilongjiang	107.7	102.9
Shanghai		
Jiangsu	2.8	2.6
Zhejiang	1.4	ND
Anhui	35.8	34.1
Fujian	76.0	74.5
Jiangxi	28.7	23.8
Shandong	84.8	81.8
Henan	215.6	211.3
Hubei	102.2	71.0
Hunan	138.3	126.8
Guangdong	37.0	28.9
Guangxi	53.9	39.9
Hainan	0.4	ND
Chongqing	99.5	82.6
Sichuan	100.2	68.8
Guizhou	436.6	417.5
Yunnan	570.6	559.2
Tibet	ND	ND
Shaanxi	91.1	87.0
Gansu	46.3	44.8
Qinghai	0.1	ND
Ningxia	1.5	1.5
Xinjiang	5.7	4.6

ND = no data.

In 1997, 2.4 million hectares of tobacco were under cultivation in China out of a total sown area of 154 million. Tobacco growing areas increased from 0.8 million hectares in 1978 to 2.4 million hectares in 1997; of this, the amount flue cured increased from 0.6 million to 2.1 million hectares (tables 1–3).

Since 1985, China has grown more tobacco than tea. So the commonly used phrase, "I wouldn't do it for all the tea in China" should be replaced with "I wouldn't do it for all the tobacco in China."

It is to be hoped that "smoke" will replace "do it".

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