

Occasional drug use: comparing nicotine with other addictive drugs

In this issue of *Tobacco Control* Evans *et al* have made an important contribution in their characterisation of "occasional smoking" in California.¹ They observed that of all adults who had smoked in the year before the survey (1989), approximately 15% met their three pronged criteria for occasional smoker status: (a) they had smoked at least 100 cigarettes, (b) they reported smoking on some days and not every day, and (c) they had smoked on fewer than 26 days in the previous month. These estimates are somewhat higher than would be predicted from the National Health Interview Survey of 1985, which showed that 10.6% of current smokers smoked five or fewer cigarettes a day.² However, the measurement approaches differ and California may not be perfectly representative of the rest of the United States. Another possibility with important public health implications is that the proportion of smokers who smoke only occasionally increased as a function of increased health concerns about smoking and anti-smoking policies.

Regardless of the explanation, there seems to be considerable wisdom in the recommendation by Evans *et al* that future surveys of tobacco use include measures of occasional smoking. This suggestion would be strengthened by a plea for similar data on smokeless forms of tobacco. There are at least three reasons why such data are important. Firstly, it is important to document possible differences, or lack thereof, in the development of tobacco-associated morbidity and mortality compared with those caused by higher levels of tobacco consumption. Secondly, it is important to document possible changes in the prevalence of occasional smoking as a function of workplace smoking bans and other health related policies. Thirdly, it would be interesting to compare systematically the prevalence of occasional smoking with the occasional use of other addictive drugs.

Identifying factors associated with the transition from low level use of addictive drugs to regular use or addictive patterns is as important in understanding the pathophysiology of addictions as it is in public health efforts to control addictions. Comparisons of tobacco use with the use of other addictive drugs may offer some insight. Interestingly, most people who initially use addictive drugs do not develop patterns of abuse or addictive use, except apparently for tobacco.² For example, whereas Evans *et al* show that about 15% of smokers smoke occasionally, several other sources of data suggest that with respect to alcohol, approximately 85% of users meet similar criteria for occasional use and approximately 15% or less the criteria for problem use or abuse.²

Additional relevant data are available from the National Household Survey on drug abuse conducted by the US National Institute on Drug Abuse.³ Although the National Household Survey questionnaire differs considerably from that used by Evans *et al*, the findings on cigarette smoking are not inconsistent: among people aged 26 years and older who had smoked in the previous year, 87% had smoked in the previous month.³ In fact, among all people who reported using cigarettes at least once in their lifetime, 38% reported that they needed tobacco or felt dependent at the time the survey was conducted.³ Furthermore, in a

1990 Gallup poll 61% of current smokers reported that they considered themselves to be addicted to cigarettes.⁴

These data, as well as those of the National Health Interview Survey, confirm that patterns of use of tobacco differ in at least one important respect from those of other addictive drugs – namely, the proportion of users who are regular and problem users by criteria appropriate to the substance is much greater for tobacco than for cocaine or alcohol. Specifically, the 1990 National Household Survey data indicated that of people who had consumed alcoholic beverages in the previous year, only 30% had consumed at least once in the past week.³ Of those who had binge (five or more drinks in a row) in the previous 30 days, 17% reported that they felt they needed to drink or were dependent. With respect to cocaine use, the 1990 National Household Survey data indicated that of people who had used cocaine in the previous year, 16% had used the drug in the previous week. Among people who had used cocaine 11 or more times in their lives, 7.7% reported that they felt they needed the drug or were dependent.³

Thus, although criteria for addictive or problem use differ across substances and across surveys, by nearly any criteria the percentage of people exposed to tobacco who graduate to problem use is higher. As has been discussed elsewhere,^{5,6} this does not necessarily mean that nicotine is pharmacologically more addictive than cocaine or other drugs of known addiction potential. Other factors seem to contribute to the high likelihood of becoming addicted after the initial exposure to tobacco – for example, ready availability and much less restrictive social or legal sanctions, or both, against everyday use. Much can be learnt from a comparison of tobacco with other drugs about the conditions under which prevalence of regular drug use is high or increasing – for example, abuse of opioids in young US servicemen sent to Vietnam in the 1960s and 1970s, increased regular use of cocaine when the "crack" form became available, and increased use of smokeless tobacco among young men and boys in the United States in the 1970s and 1980s.^{2,6}

Currently, the data suggest that prevention strategies should discourage any experimentation with tobacco because the likelihood of graduation is so high compared with all other addictive drugs. The collection of additional data, as suggested by Evans *et al*,¹ will help determine factors that may reduce the risk of developing tobacco addiction after experimental use. Such data may also be relevant to understanding and preventing other forms of drug abuse, as discussed elsewhere.^{6,7}

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1 Evans NJ, Gilpin E, Pierce JP, Burns DM, Borland R, Johnson M, *et al*. Occasional smoking among adults: evidence from the California Tobacco Survey. *Tobacco Control* 1992; 1: 169-75.

2 US Department of Health and Human Services. *The health consequences of smoking: nicotine addiction. A report of the Surgeon General, 1988.*

- Atlanta, Georgia: Centers for Disease Control, Office on Smoking and Health, 1988. (DHHS Publication No (CDC) 88-8406.)
- 3 US Department of Health and Human Services. *National Household Survey on Drug Abuse: main findings 1990*. Washington, DC: DHHS. 1991. (DHHS Publication No (ADM) 91-1788.)
- 4 *Gallup Poll News Service* 1990; 55(11): 1-6. (Princeton, New Jersey.)
- 5 Henningfield JE, Clayton R, Pollin W. Involvement of tobacco in alcoholism and illicit drug use. *Br J Addict* 1990; 85: 279-92.
- 6 Henningfield JE, Cohen C, Slade JD. Is nicotine more addictive than cocaine? *Br J Addict* 1991; 86: 565-9.
- 7 Kozlowski LT, Ferrence RG, Corbit T. Tobacco use: a perspective for alcohol and drug researchers. *Br J Addict* 1990; 85: 245-6.