

LETTERS TO THE EDITOR

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Consumers' knowledge and beliefs about the safety of cigarette filters

EDITOR,—The primary purpose of the cigarette filter is reduction of tar in tobacco smoke.^{1,2} Filters also keep tobacco flakes out of smokers' mouths.¹ The standard filter used on cigarettes today contains 15 000 fibres per filter.¹

Several studies have demonstrated that the filter material (cellulose acetate fibres) can become detached.³⁻⁷ Pauly and colleagues have recently observed cigarette filter fibres in human lung specimens, indicating that the material is respirable.⁸ A study of filter fibres implanted in mice for six months demonstrated that fibres resist biodegradation.⁵ As a result of burning tobacco, the discharged fibres are also coated with tobacco tar, which contains carcinogens.⁵ Such inhaled filter fibres may pose a previously undefined health risk to the smoker beyond exposure to the chemical toxins found in tobacco smoke.⁵

We have found no mention of the problem of filter fibre fallout in advertisements for filtered cigarettes. On the contrary, consumer surveys demonstrate that many smokers believe that filtered cigarettes reduce the risks of smoking.⁹⁻¹¹

This study was undertaken to explore consumers' beliefs about cigarette filter safety and the ingestion/inhalation of cigarette filter fibres. Fifty three current smokers and 24 former smokers were interviewed while waiting in line at a division of motor vehicles office in Erie County, New York in the summer of 1997. Fewer than 5% of those approached refused to participate in the survey interview. Overall, the sample was 52% male and 48% female; 56% were aged 40 years or younger. A current smoker was defined as someone who has smoked 100 cigarettes in one's lifetime and currently smokes. Two thirds of the current smokers smoked more than 15 cigarettes per day. A former smoker was defined as someone who had smoked 100 cigarettes in one's lifetime, but who was not currently smoking at the time of the interview. Most of the former smokers (91%) had discontinued their smoking more than two years before the interview. All but two respondents (one current smoker and one former smoker) reported past use of filter tipped cigarettes.

The brief (approximately 10 minute) survey was administered by a trained research assistant who asked a series of questions designed to measure beliefs about the safety and benefits of cigarette filters. Table 1 displays the responses of smokers and former smokers to six questions. These data demonstrate that most consumers believe that: (1) filters make cigarettes safer; (2) are unaware of the possibility of loose fibres from cigarette

Table 1 Beliefs about the safety of cigarette filters and the problem of filter fibre fallout

Question	Smokers n (%)	Former smokers n (%)
Do you think a filter makes a cigarette safer than the same cigarette without a filter?	Yes 30 (58) No 22 (42)	14 (58) 10 (42)
Have you ever noticed if the filter material comes off in your mouth when you smoke?	Yes 3 (6) No 49 (94)	1 (4) 22 (96)
Have you ever heard of any research on whether filter material can get into smokers' lungs?	Yes 11 (21) No 42 (79)	4 (17) 19 (83)
If cigarette filter fibres are inhaled into the lungs or eaten, would you consider this an additional health risk beyond the exposure to tobacco itself?	Yes 47 (90) No 5 (10)	22 (96) 1 (4)
If you were to learn that some of the filter material is inhaled into your lungs, would this new knowledge increase your chances of quitting?	Yes 26 (50) No 27 (50)	NA
If cigarette fibres become loose, and the cigarette companies are aware of this, do you think they have an obligation to warn the public about this?	Yes 53 (100) No 0 (0)	24 (100) 0 (0)

filters being ingested and/or inhaled into their lungs during smoking; and (3) cigarette companies should be required to inform consumers about potential for filter fibre fallout. Also, it appears that knowledge about the filter fibre fallout problem might influence at least some smokers to give up cigarettes. Although the sample was not selected to be representative of the entire US population, the consistency of responses across different age, sex, and smoking status groups strongly suggests that the findings from this survey would be reflective of the views of most consumers.

The health benefits associated with putting filter tips on cigarettes continues to be a hotly debated issue.¹²⁻¹⁴ It is now clear that cigarette filters do not make cigarette smoking a safe behaviour and may actually introduce smokers to new risks not associated with unfiltered cigarettes.

Smokers favour being better informed about the health risks of smoking.¹⁵ Cigarette manufacturers should be required to inform consumers about the potential for ingesting/inhaling filter material during smoking. In addition, cigarette manufacturers should be encouraged and/or required to utilise technology to design cigarette filters so as to reduce the problem of filter fibre fallout.¹⁶

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Smoking prevalence in New South Wales correctional facilities, 2000

EDITOR,—Since 1974, periodic national smoking prevalence studies have been published for the general Australian population.¹ However, similar studies on prison populations are non-existent. We report the results of a survey carried out during the year 2000 in 21 of 23 New South Wales (NSW) correctional facilities. These facilities contain about 93% of the state's total prison population.

We assessed smoking prevalence indirectly by auditing the weekly shopping lists presented by inmates in each facility for at least two consecutive weeks June to November 2000. We calculated the average number of inmates presenting shopping lists as well as the average number of inmates buying tobacco. These shopping lists are usually for non-food items, as food is provided for all inmates. Inmates found to have

purchased at least one packet of tobacco were recorded as regular smokers. This methodology was pilot tested in two correctional facilities (by comparing with observed number of smokers) and was found to provide an objective and reliable estimate of smoking prevalence.

Of the 5959 inmates who submitted shopping lists during the study period, 4294 (72%) were found to have purchased at least one packet of tobacco. Smoking prevalence ranged from 48–97%, with facilities at both extremes housing male, minimum security inmates.

Smoking prevalence was significantly higher among females ($n = 324/402$, 81%) compared with males ($n = 3980/5575$, 71%) ($p < 0.001$, 95% confidence interval (CI) 5.85 to 14.15).

Studies in the general Australian population reveal a downward trend in smoking patterns, from 40% adults in 1980 to 22% in 1998.^{2,3} Hence, the prevalence of tobacco use in NSW correctional facilities is currently more than triple that of the general Australian population. Also the higher prevalence of smokers among female inmates contrasts with the smoking trends in the general Australian population, with male smoking prevalence significantly higher than that of women.¹

About 77% of inmates in metropolitan jails smoke ($n = 1881/2430$), compared with 68% in non-metropolitan jails ($n = 2413/3529$)—a significant difference ($p < 0.001$, 95% CI 6.69 to 11.31). The smoking prevalence among inmates in the prison psychiatric hospital wards was 83% ($n = 66/80$), significantly higher than the average prevalence of smoker inmates in NSW correctional facilities ($p < 0.05$, 95% CI 1.76 to 19.48). Comparatively higher smoking prevalence for mentally ill individuals has been reported for the general US community.⁴ Smoking rates are known to be consistently high in prison populations. For example, a 1991 statewide survey of 72 county jails in Wisconsin revealed that between 71% and 93% of inmates smoked.⁵

People who are educationally, socially or economically disadvantaged are at increased risk of becoming involved with the legal system, either as perpetrators or victims of crime.⁶ Within the context of “diffusion of innovation” theories,⁷ cohorts of prison inmates comprise socioeconomically marginal individuals, who are least likely to be affected by mainstream educational strategies for tobacco control. Unfortunately, prison settings were not specifically addressed in the current Australian National Tobacco Strategy.⁸ In most correctional facilities in Australia, there is the additional issue of indifference in social concern, and reluctance by correctional authorities to allocate resources and address tobacco use in prisons—an issue that is sometimes perceived as capable of disrupting the “peace” in correctional environments, through protests and riots by inmates.^{9,10}

Preliminary results from an ongoing pilot project on smoking cessation in NSW jails indicate that most inmates who smoke have comparatively less knowledge about tobacco. In line with the diffusion theories, such inmates may be considered not intrinsically unreachable, but as “laggards” who would catch up. Such an approach helps tobacco control workers to avoid victim blaming and focus attention on ways of speeding up the diffusion process. This may be achieved through individual and group counselling

sessions on tobacco cessation, wide distribution of prison based tobacco educational materials, and tobacco cessation programmes incorporating free nicotine replacement therapy. We advocate the introduction of national prison inmate smoking prevalence surveys, and greater attention to tobacco control in prisons.

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Patterns of tobacco use in rural Udmurtia

EDITOR.—The purpose of the current study, which was carried out in 1995, was to explore the prevalence of mental disorders, including tobacco use, in Udmurtia. Udmurtia is a former Autonomous Soviet Socialist Republic that currently is a Constituent Republic of the Russian Federation. According to the census of 1989, the population of the republic is about 1.6 million. The total rural population is 485 890, with the majority of the population being of Udmurt (57.8%) and Russian (37.1%) ethnic origin. The Udmurts are similar to Estonians, Finns, and Hungarians in that they belong to the group of Finno-Ugric nations.

The study sample of 855 subjects was drawn by systematic random sampling from the lists of rural inhabitants in the age range 18–65 years. In order to explore tobacco use patterns we used a Composite international diagnostic interview 1.1,¹ which was designed for assessment of mental disorders (including

tobacco dependence) according to the criteria of the *International classification of diseases*, 10th revision (ICD-10), and the *Diagnostic and statistical manual of mental disorders*, third edition, revised (DSM-III-R). As in our study tobacco dependency showed nearly identical prevalence by both classifications, only data according to ICD-10 are presented.

The prevalence of lifetime smoking (current and ex-smokers) in our sample was 72.3% in men and 2.5% in women, which was slightly more than the average rate of smoking in Russia.² Sixty nine per cent (68.8%) of men and 2.3% of women were current smokers. The rate of tobacco dependent men (52.7%) was similar to the rate of heavy smokers (50.5%). Heavy smokers were defined as those who smoked 15 or more cigarettes per day. Nearly 60% of ever smokers had attempted to quit, but only 5% had been abstinent for more than one year.

We found an association between tobacco use and ethnicity. Russian men were more likely to be current smokers than Udmurt men (78.7% v 64.4% $p < 0.05$), although no association between the ethnicity and tobacco dependence was found. This suggests that Udmurts may be more vulnerable to tobacco dependence than Russians. A similar relation has been found for alcohol dependence.³ In Udmurt men there was a significant association between tobacco dependence and alcohol dependence (odds ratio 2.59, 95% confidence interval 1.39 to 4.88).

Our data also support an association between tobacco use and suicidal behaviour.⁴ A significant association was found between tobacco smoking and suicide attempts in Udmurt men. A suicide attempt was reported by 19 Udmurt men of whom 17 (89.5%) used tobacco ($p = 0.048$). Three of the four Russian men who had attempted suicide smoked cigarettes.

Tobacco is a leading cause of avoidable death in Russia.² The risk for smoking attributable morbidity and mortality increases the earlier in life smoking begins.⁵ In our study, more than half of all smokers (58%) had begun to smoke regularly before they were 20 years old, and 86% before 25 years old. The majority of smokers had a long duration of smoking: 95% of smokers had smoked regularly for five years or more, and 72% for 10 years or more. Moreover, the majority of smokers in our sample used cheap low quality cigarettes without filters that have high nicotine and tar contents, that also increase considerably the risk of mortality.⁶ The findings of this study highlight the urgent need for a more effective tobacco control policy in the region of Udmurtia. The various public health measures that may help to reduce smoking, particularly among the young men, should be vigorously applied.

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