

concern about what BATCO's competitors might be doing to their "low delivery cigarettes" (that is, low machine measured tar and nicotine *yield* cigarettes) in order to create brand allegiance. Kilburn proposed that a regular etorphine dose of as little as 0.2 µg per day would be sufficient to create an addictive craving for the source. He also claimed that the required delivery of around 7 ng per cigarette (or around half the delivery of benzo[a]pyrene) would be analytically difficult to measure.

Etorphine is a powerful drug with heroin-like effects, which include respiratory failure in the case of overdose. It may be more familiar to readers as "elephant juice"—a veterinary drug with such high potency that a tiny quantity injected from a dart can immobilise an elephant.

The dangers of etorphine to humans have been dramatically demonstrated in accidents during veterinary use, as there have been fatal overdoses to veterinarians attempting to dart large unruly animals. Reputedly, a mere scratch from an etorphine dart has been sufficient in some cases to provide a fatal overdose. As a consequence of these fatalities, veterinarians who are registered to use etorphine must now have an assistant standing by with a dose of an etorphine antagonist in hand.

These observations on the dangers of etorphine underscore Green's and Kilburn's essential point: very low concentrations of certain psychoactive substances may be sufficient to produce important effects, including addiction. Fortunately, etorphine has become much more readily detectable in recent years than Green and Kilburn suggested was the case in 1977, because forensic toxicologists have put considerable effort into developing highly sensitive detection methods. However, in a world market with minimal regulation of cigarette additives and limited testing capacity outside the industry's own laboratories, we should remain concerned about what the tobacco industry might be willing to do in order to create "brand allegiance".

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## How to critique consultancy reports?

The recent proposals for smoke-free legislation in many countries have spawned a multitude of studies which attempt to predict the financial impact of such legislation. As described by Scollo *et al*<sup>1</sup> in this issue of *Tobacco Control*, many of these studies fail to achieve

basic quality standards and this is more likely when the tobacco industry funds the study. However, findings from such flawed studies can influence policy makers and it is essential that public health advocates have strategies to counter their impact.

In Hong Kong in 2001, the government proposed to make all workplaces, including catering venues, smoke-free.<sup>2</sup> A consultancy report for the catering industry, funded by the tobacco industry, was published shortly after and concluded that the legislation would cause catering industry revenues to drop by 10.6% leading to job losses. This report was based on a survey of customers to catering venues, self reported spend on eating and drinking out, and self predicted changes in the event that catering venues were made smoke-free. Since the methods used were not made clear in the report, we had to attempt to validate or refute the report mainly by an assessment of its findings. We found the following questions useful:

(1) Was the sample used for the consultant's survey representative of the population being studied (customers of catering venues)? Since we could not determine if sample selection was done properly, we had to look at sample characteristics. The prevalence of smokers was much higher than in other survey data indicating a bias in the sample.

(2) Did the consultant's data, when extrapolated/aggregated, agree with other standard data sources—for example, government statistics? Much of the basic data collected by the consultants was not disclosed in their report but, to make their case, they had to present some—for example, average weekly spends in the different types of catering venues. From these data we could estimate (a) expected weekly revenue in the catering industry, (b) approximate market shares for the different types of venue, and (c) weekly spend on eating out per household if the consultant's data were valid. Each of these estimates was quite implausible when compared with data from the census and other government sources.

(3) Could the consultant's findings be reproduced to shed light on the methods used? Using a new set of data based on random sampling, we tried to recreate the consultant's findings by deliberately introducing biases and incorrect aggregations which we suspected were present in the consultant's methods. In this way we were able to produce an almost identical set of results from the new data. On the other hand, when we analysed the new data in an appropriate fashion, we predicted a rise of 5% rather than a drop of nearly 11% in catering revenues.

The best means of influencing policy on smoke-free catering venues is to use objective outcome measures and data collected both before and after the intervention, as recommended by Siegel and listed by Scollo *et al*.<sup>1</sup> The study we were able to refute would have failed Siegel's quality criteria. However, since much of the lobbying against smoke-free legislation is done before such policies are put in place, local objective, before and after data are inevitably not available. In our case, presenting our rebuttal of the consultant's findings along with the evidence accumulated from overseas studies that smoke-free policies do not harm catering industry revenues, greatly reduced the harm that the consultant's report could have done to the proposed legislative process. Our approach may be helpful to policy makers faced with a similar situation in their own locality.

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## Interest in nicotine replacement therapy among pregnant smokers

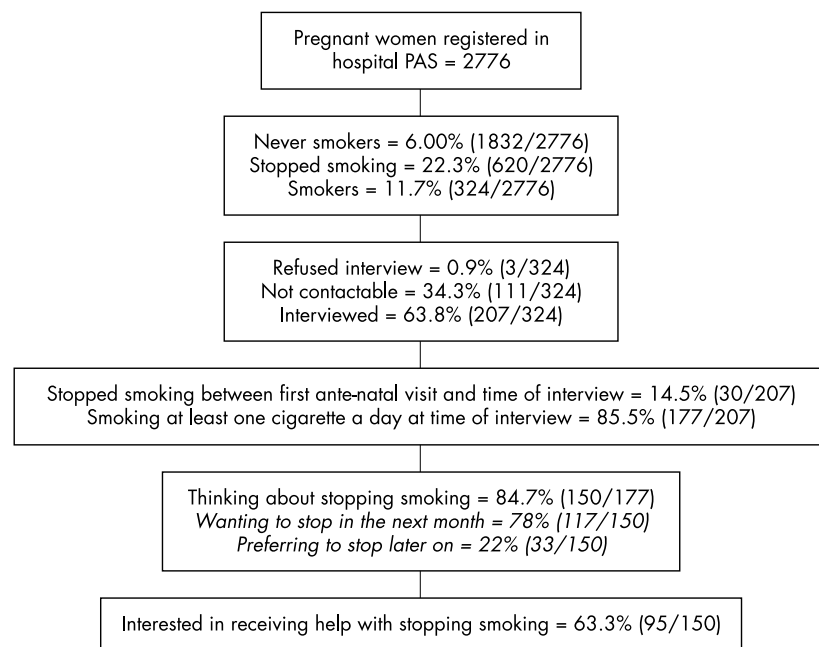
In the UK nicotine replacement therapy (NRT) may now be considered for those pregnant women who cannot otherwise stop smoking.<sup>1</sup> However, very little research has been carried out with NRT during pregnancy and the level of interest in using NRT is not known.<sup>2</sup> This letter reports the results of a survey to assess the level of interest in using NRT among pregnant smokers.

Across a seven month period pregnant smokers were identified using the patient administration system of a large district general hospital in south west London. Ethical approval was obtained and participants gave verbal consent via the telephone. Women identified as smokers at their first antenatal booking visit were telephoned within one week of this visit and invited to take part in the survey. The interview took place during the initial telephone call or during a further call within 48 hours of the initial call. All statistical tests were two tailed.

Demographic information was obtained from patient records. All the women were asked "Can I just check, are you still smoking at the moment?" ("yes" or "no"). Those still smoking were asked "About how many a day would you say you are smoking at the moment?", and "Are you thinking at all about stopping?" ("yes" or "no"). Those expressing an interest in stopping were asked "Do you think you might want to stop in the next month, or might you prefer to try a bit later on" and "Would you be interested in receiving some help from the hospital with stopping?" ("yes" or "no"). Women stating an interest in receiving help were asked "Some forms of nicotine replacement therapy (NRT) can now be used by pregnant smokers who feel they wouldn't be able to stop without it. Would you choose to use NRT to help you to stop smoking?" ("yes" or "no").

Of the 207 smokers interviewed (fig 1) the large majority were not in professional/managerial occupations (85.0%, 176/207), were white (75.8%, 157/207), and attended their first antenatal booking visit in the hospital (66.7%, 138/207) rather than in the community. The mean (SD) duration of pregnancy was 18.6 (5.6) weeks and the mean (SD) reported number of cigarettes smoked per day was 7.3 (6.1).

Of those women reporting that they were thinking about stopping smoking 44.7% (67/150) expressed an interest in using NRT. Interest in NRT was higher among women who reported smoking more cigarettes per day (analysis of variance (ANOVA):  $F = 7.6$ ,



**Figure 1** Participant flow. PAS, patient administration system.

$p = 0.006$ ; mean (SD) cigarettes a day: interested in NRT ( $n = 67$ ) = 9.5 (6.3), not interested in NRT ( $n = 83$ ) = 7.1 (4.2). Following current licensing regulations,<sup>1</sup> 39.3% (59/150) of the women wanting to stop smoking reported smoking sufficient cigarettes per day ( $\geq 10$ ) to be considered eligible for NRT. Interest in using NRT was significantly higher for those smoking at least 10 cigarettes a day ( $\chi^2: \chi = 5.0, p = 0.03$ ; 10 or more cigarettes a day: interested in NRT = 55.9% (33/59), less than 10 cigarettes a day: interested in NRT = 37.4% (34/91)). Overall, 22% (33/150) of those reporting wanting to stop smoking were both interested in NRT and eligible for NRT.

The results indicate a high level of interest in stopping smoking among pregnant women still smoking following their first antenatal booking and a moderate level of interest in using NRT. Fewer women were recorded as smokers at their first antenatal visit than would be expected from national data.<sup>3</sup> This is likely to be because of the high number of Asian women in the local population. Encouragingly, those women who were heavier smokers, and were therefore eligible for NRT, showed most interest in NRT. Around a quarter of the smokers wanting to stop were both eligible for NRT and interested in using NRT. These findings add support to the argument for conducting further trials of NRT for pregnant smokers. The ultimate test of the acceptability of NRT for these women will be the degree to which NRT is utilised.

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Conflicts of interest: Robert West has previously been involved in research and consultancy sponsored by manufacturers of nicotine replacement therapy.

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## Voodoo cigarillos: bidis in disguise?

As part of its routine monitoring of emerging tobacco products, "Trinkets & trash: artifacts of the tobacco epidemic", a collection of current and historic tobacco marketing ([www.trinketsandtrash.org](http://www.trinketsandtrash.org)), recently identified a new tobacco product called Voodoo cigarillos. They are exclusively manufactured in India for the US based Kretek International, a specialty tobacco distributor whose exclusive product line includes Djarum clove cigarettes, Darshan bidis, and Dreams multi-coloured and flavoured cocktail cigarettes.<sup>1</sup> The Voodoo cigarillos we obtained were flavoured and, as with bidis, consisted of tobacco flakes wrapped in a leaf tied with a small string. Aside from a slightly larger and more uniform cylindrical shape, Voodoo cigarillos appear to be nearly identical to bidis (fig 1). Only the name on the package would identify it as a cigarillo. US federal regulations define a cigar as any roll of tobacco wrapped in leaf tobacco or in any substance containing tobacco.<sup>2</sup> Voodoo cigarillos appear to be wrapped in tendu leaf, which do not naturally contain tobacco.

So we ask, is this new product a cigarillo or a bidi with new packaging? Federal regulations define a cigarette as any roll of tobacco wrapped in paper or in any substance *not* containing tobacco.<sup>3</sup> The US Bureau of Alcohol, Tobacco and Firearms previously concluded the bidi wrapper did not contain tobacco and, therefore, bidis were subject to the federal cigarette tax.<sup>4</sup>



**Figure 1** Voodoo cigarillo and Darshan bidi.

The distinction between a cigarillo and a cigarette has important legal and financial implications. Since the wrapper of a cigarillo contains tobacco, cigarillos are taxed at the same rate as small cigars. In 2002, the US federal tax rate for small cigars was 4 cents per pack of 20, while the rate for cigarettes was 39 cents per pack of 20.<sup>5</sup> While all 50 states impose a tax on cigarettes, only 45 states impose a tax on cigars,<sup>6</sup> which are lower than their cigarette tax.<sup>7</sup> If Voodoo cigarillos are taxed at the rate of cigars, the lower federal and state taxes mean a higher profit margin for the merchant and/or lower prices for consumers.

In addition to tax differences, labelling the Voodoo product as a cigarillo has important consequences for their regulation. Several states have expanded their definition of tobacco products to include bidis, making sales to minors illegal. Illinois, Vermont, and West Virginia banned the sale of bidis completely.<sup>8</sup> More recently, California passed a bill prohibiting the sale, distribution or importation of bidis except by businesses that prohibit minors, such as bars and casinos.<sup>9</sup> Also, federal legislation to halt the importation of bidis into the USA was introduced in 2001.<sup>8</sup> By being sold as a cigar product, Voodoo cigarillos would get around the ban on bidi sales in some states.

This new product emerges at a time when bidi sales are vulnerable to increased regulation at the state, and possibly the federal level, as well as higher cigarette excise taxes in 19 states in 2002.<sup>7</sup> The Voodoo cigarillo may be a clever way for the tobacco industry to circumvent the regulations and restrictions imposed on bidis. Voodoo cigarillos should be reliably tested to determine if manufacturers and vendors are in compliance with federal and state laws.

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