LETTERS

Letters intended for publication should be a maximum of 500 words, 10 references, and one table or figure, and should be sent to the editor at the address given on the inside front cover. Those responding to articles or correspondence published in the journal should be received within six weeks of publication.

Listening between the lines: what BAT really thinks of its consumers in the developing world

In an audio recording of the “Structured Creativity Conference” held in Hampshire, UK in June 1984, British American Tobacco (BAT) adds context to the written report of marketing and product applications. Employees are taped brainstorming creative ways to push their product in light of future marketing constraints and social pressure towards a smoke-free society. Project proposals included the following: low sidestream smoke cigarettes, “front end lift” cigarette design to give the smoker more “impact” on the first puff, pleasant smelling sidestream smoke, and open-ended—“Forget about smoking...GO FOR A QUICKIEE. No tar with nic, is what makes the body kick.”

One of the most interesting proposals came from Ian Ross from a Finland subsidiary, who later became the head of international brand business at BATCO in the early 1990s. Ross’s proposal, the “LDC (less developed counties) Project”, called for individually heat sealed cigarettes designed to lengthen the shelf life of cigarettes in arid climates found in Africa and the Middle East. This rather ingenious idea for stick sales would be sold to tobacco vendors in reels with visible brand imaging, containing 200 cigarettes that could be pulled off along perforations one at a time.

What the 80 or so page written report did not include, the audiostream captured with clarity. The taped conversations of the BAT conference participants offered rarely obtained loose discourse regarding product design proposals and a derogatory discussion of the people intended for end product use.

Ross relays that he wants to make “stick purchases seem like a consumer benefit” by supplying “factory sealed and factory freshness” every time. As for marketing the heat sealed stick product, Ross states: “...[The brand image must be enhanced by the new packaging] ... if you just say, this is a cheap cigarette for you dirt poor black farmers... they’re not going to go for it.”

Ross also discusses the target group—“urban” vs “male”, between 18–30, and “aspiring lower middle” socioeconomic class—and says: “I have not gone into psychographics...I have no idea what the psychographics of the average black farmer is.”

Another conference participant ruminates, “We could sell them to the Palestinians if we made the plastic hard enough that you could rip the end off and put your shells in them...”

This discourse, not found on the written page, internal tobacco industry documents reveals that BAT did not consider any of the health effects of smoking, and questions the fundamental differences between Eclipse and other cigarettes. It is not possible within the context of this letter either to fully describe the scientific data that has been developed to characterize Eclipse or to address many of the criteria raised in Slade’s article. However, we briefly address pertinent issues below and encourage interested parties to independently evaluate all of the available information.

Slade et al have inaccurately represented the claims that RJ Reynolds Tobacco Company (RJRT) has made regarding Eclipse. No cigarette is without risk, including Eclipse. Our advertising for Eclipse states: “The best choice for smokers who worry about their health is to quit. But Eclipse is the next best choice for those who have decided to continue smoking.” Our advertising also makes it clear that RJRT does not claim that Eclipse presents “no risk of cardiovascular disease or complications with pregnancy.”

In the absence of any existing regulatory standard, RJRT assumed Eclipse’s risk reduction potential using a four step scientific methodology that included chemical testing and analysis, biological and toxicological testing, human testing, and independent scientific verification. In general, the evaluation strategy utilised was consistent with strategies outlined by the Institute of Medicine Committee that addressed this subject. RJRT has conducted an extensive comparative evaluation of Eclipse and has presented this research at scientific meetings in the both the USA and internationally. The results of these and other studies may be reviewed on the Eclipse website (www.eclipsescience.com).

In addition, much of this research has been published in the peer reviewed literature. The weight of the evidence from this research clearly shows that, compared to other cigarettes, Eclipse may present smokers with less risk of cancer, chronic bronchitis, and possibly emphysema. An independent panel of scientific experts reviewed the science and reached conclusions consistent with RJRT’s claims.1

RJRT’s comparative studies were conducted using Kentucky reference cigarettes (K1RF and K1RF) and leading low “tar” and ultra low “tar” commercial brand styles. Combined, the cigarettes selected for comparison to Eclipse are representative of the vast majority of cigarettes sold in the US market.2 By contrast the entire market segment of the very low yielding ultra low “tar” cigarettes used by Slade et al as a comparison collectively represent less than 1% of the market. Furthermore, one of the two cigarettes selected as a comparison (Now Box) does not have a measurable US Federal Trade Commission (FTC) “tar” yield.

Eclipse: does it live up to its health claims?

We read the recent article by Slade et al with great interest and agree that reasonable regulation focused on the development and appropriate evaluation of potentially reduced risk cigarettes is warranted. Furthermore, we agree with Slade et al that the results of our evaluation indicate that Eclipse may offer potential health benefits to smokers. However, we disagree with several of the other conclusions drawn by the authors.

The article challenges the merits of Eclipse and questions the fundamental differences between Eclipse and other cigarettes. It is not possible within the context of this letter either to fully describe the scientific data that has been developed to characterize Eclipse or to address many of the criteria raised in Slade’s article. However, we briefly address pertinent issues below and encourage interested parties to independently evaluate all of the available information.

Slade et al have inaccurately represented the claims that RJ Reynolds Tobacco Company (RJRT) has made regarding Eclipse. No cigarette is without risk, including Eclipse. Our advertising for Eclipse states: “The best choice for smokers who worry about their health is to quit. But Eclipse is the next best choice for those who have decided to continue smoking.” Our advertising also makes it clear that RJRT does not claim that Eclipse presents “no risk of cardiovascular disease or complications with pregnancy.”

In the absence of any existing regulatory standard, RJRT assumed Eclipse’s risk reduction potential using a four step scientific methodology that included chemical testing and analysis, biological and toxicological testing, human testing, and independent scientific verification. In general, the evaluation strategy utilised was consistent with strategies outlined by the Institute of Medicine Committee that addressed this subject. RJRT has conducted an extensive comparative evaluation of Eclipse and has presented this research at scientific meetings in the both the USA and internationally. The results of these and other studies may be reviewed on the Eclipse website (www.eclipsescience.com).

In addition, much of this research has been published in the peer reviewed literature. The weight of the evidence from this research clearly shows that, compared to other cigarettes, Eclipse may present smokers with less risk of cancer, chronic bronchitis, and possibly emphysema. An independent panel of scientific experts reviewed the science and reached conclusions consistent with RJRT’s claims.1

RJRT’s comparative studies were conducted using Kentucky reference cigarettes (K1RF and K1RF) and leading low “tar” and ultra low “tar” commercial brand styles. Combined, the cigarettes selected for comparison to Eclipse are representative of the vast majority of cigarettes sold in the US market.2 By contrast the entire market segment of the very low yielding ultra low “tar” cigarettes used by Slade et al as a comparison collectively represent less than 1% of the market. Furthermore, one of the two cigarettes selected as a comparison (Now Box) does not have a measurable US Federal Trade Commission (FTC) “tar” yield.

References
Comparisons of Eclipse mainstream smoke constituent yields to the yields of very low yielding ultra low “tar” cigarettes (Now Box and Carlton Soft Pack) obtained by machine smoking do not change the fact that Eclipse cigarettes may present smokers with less risk of certain smoking related diseases than other cigarettes. RJRT scientists have recently demonstrated Eclipse is significantly less mutagenic than Carlton Soft Pack under all smoking conditions tested and was less mutagenic than Now Box when evaluated using the machine smoking conditions mandated by both the Massachusetts Department of Health and the Canadian federal government. In addition, Eclipse was significantly less cytotoxic on both a per mg “tar” basis and a per cigarette basis under the same range of machine smoking conditions.

As noted by Slade et al., smokers typically take larger and more frequent puffs than those specified by the US Federal Trade Commission puffing regimen and they typically smoke Eclipse differently than their usual “usual” brands. It is essential that a weight-of-the-evidence approach, including studies in smokers, be used to characterise potential differences between Eclipse and other cigarettes. Urine mutagenicity studies conducted in smokers demonstrate that smokers of ultra low “tar”, full flavour low “tar”, and full flavour “tar” cigarettes all experience substantial, statistically significant reductions (p < 0.003) in mutagen exposure when they switch to Eclipse. Furthermore, additional studies conducted in smokers have demonstrated reductions in bronchial inflammation and inflammation of the lower lung when smokers switched to Eclipse. These findings are consistent with reductions in smoker exposure to toxins or reduce harm. Eclipse, actually met the promise to reduce exposure to toxins or reduce harm.

Since the introduction of Eclipse, a number of other products have been brought into the market place that make explicit or implied claims of being “safer” than conventional cigarettes. These include Omni, Advance, Accord, and a soon to be released Philip Morris product called SCOR. Our article highlights the need for regulation of these products and associated claims by independent agencies such as the US Food and Drug Administration (FDA). RJRT could help “Clear the Air” by supporting pending FDA legislation. Food and drug manufacturers are not allowed to introduce new products into the market and make claims based solely on their own internal research, and nor should tobacco manufacturers.

RJRT truly believes that Eclipse may reduce risks of lung cancer and other diseases, the company should request the FDA to evaluate its scientific research and claims before marketing it at the retail nation-ally.

G N Connolly
Massachusetts Department of Public Health, 250 Washington Street, Boston, MA 02108-4619, USA; greg.connolly@state.ma.us

Reference
1 Slade J, Connolly GN, Lympiris D: Eclipse: does it live up to its health claims? Tobacco Control 2002;11(suppl II):i64–70.

Author’s reply
Swauger argues that based on the weight of the evidence, Eclipse, compared to other cigarettes, may present smokers with less risk of cancer and other smoking related diseases. He bases this conclusion on “weighing” the scientific research RJ Reynolds Tobacco (RJRT) has conducted on Eclipse. Our study drew the opposite conclusion. Our analysis of the Eclipse research suggests that Eclipse is not a toxic or more toxic than a number of conventional cigarette brands.

RJRT claims “there is no cigarette like Eclipse” based on a comparison of the smoke chemistry of Eclipse with a typical ultralight, Merit. We tested Eclipse against two other ultralight cigarettes, Now and Carlton, and found the smoke concentrations of four major carcinogens to be higher, not lower. RJRT’s claim that “there is no cigarette like Eclipse” may be misleading to consumers.

We tried to “weigh” the evidence but found that to be difficult since the control cigarettes kept changing between the studies. The smoke chemistry research used a commercial “ultralight” as a reference, the in vitro research a Kentucky “light” cigarette and the human research the “I-Brand” of heavy (40 + cigarettes per day) smokers. The “usual” brands were not identified. We also examined changes in smoke chemistry between the 1996 version of Eclipse and the 2000 version and found that concentration of four major carcinogens doubled in the 2000 version. The concentration of NNK was 123% greater than RJRT’s early 1988 version of Eclipse called Premier.

In 2001, the Institute of Medicine’s report “Clear the Air” determined that there was insufficient evidence to conclude that any current marketed cigarettes present smokers with less risk of certain smoking related diseases than other cigarettes.

Cigarette smoking is the leading public health problem in the USA, contributing to over 400 000 deaths a year. Given its importance, the tobacco control community should be aware of all significant patterns in the consumption of cigarettes to reduce disease. Research efforts should be relevant to efforts aimed at tobacco control. Unfortunately, little attention has been paid to the seasonal nature of smoking. Findings on seasonal patterns may have major implications for the timing of interventions designed to manage the tobacco problem, both in the USA and in other countries.

In this letter, monthly data for cigarette sales at the state level for the USA are analysed to test for the presence of seasonality and to characterise the phenomenon. The results reveal a seasonal pattern that is significant both in the statistical sense and in magnitude. This includes a drop in the winter months of January and February, and an increase during the summer months of June, July, and August. Because seasonality in sales does not reflect seasonality in production, it must be inferred that the seasonality is driven by wholesale and retail phenomena, including consumption.

The data used in this study are monthly figures for sales of cigarettes by wholesalers aggregated at the state level between January 1983 and July 2000. Until December 1997, the Tobacco Institute was responsible for their collection. For the period following this, the firm Orzechowski and Walker produced the data.
Table 1 Summary statistics on seasonality of cigarette sales

<table>
<thead>
<tr>
<th>State</th>
<th>Spectral analysis (p value for Bartlett’s test)</th>
<th>Stable seasonality test (p value)</th>
<th>Seasonal factor range</th>
<th>Months with extreme seasonal effects (month name and number of times the month is a high-2 or low-2 seasonal factor)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>0.0013 &lt;0.0001</td>
<td>23.97</td>
<td>Oct(13)</td>
<td>Most frequent high month: Jan(10) Feb(17) 2nd most frequent high month: Jun(10) Feb(17)</td>
</tr>
<tr>
<td>Alaska</td>
<td>&lt;0.0001</td>
<td>56.45</td>
<td>Jul(11)</td>
<td>Most frequent low month: Aug(9) Feb(13) 2nd most frequent low month: Nov(9)</td>
</tr>
<tr>
<td>Arizona</td>
<td>0.0016 &lt;0.0001</td>
<td>22.69</td>
<td>Jan(10) Oct(7) Feb/Mar(17)</td>
<td>*</td>
</tr>
<tr>
<td>Arkansas</td>
<td>0.0175</td>
<td>27.73</td>
<td>Jun(17) May(7) Feb(17)</td>
<td>Jan(8)</td>
</tr>
<tr>
<td>California</td>
<td>&lt;0.0001</td>
<td>21.67</td>
<td>Jun(14)</td>
<td>May(7) Jan(17)</td>
</tr>
<tr>
<td>Colorado</td>
<td>&lt;0.0001</td>
<td>28.50</td>
<td>Sep(12) Jul/Aug(8)</td>
<td>Feb(17)</td>
</tr>
<tr>
<td>Connecticut</td>
<td>&lt;0.0001</td>
<td>24.17</td>
<td>Jun(11) Aug(7)</td>
<td>Feb(17) Jan(14)</td>
</tr>
<tr>
<td>Delaware</td>
<td>&lt;0.0001</td>
<td>61.65</td>
<td>Jun(11)</td>
<td>Aug(8) Feb(16) Jan(7)</td>
</tr>
<tr>
<td>DC</td>
<td>&lt;0.0001</td>
<td>50.25</td>
<td>Jun(10)</td>
<td>Oct(9) Feb(10) Nov(7)</td>
</tr>
<tr>
<td>Florida</td>
<td>&lt;0.0001</td>
<td>70.90</td>
<td>Apr(11) Mar/May/Nov/Dec(5)</td>
<td>Feb(17) Sep(7)</td>
</tr>
<tr>
<td>Hawaii</td>
<td>0.0001</td>
<td>0.0111</td>
<td>36.99</td>
<td>Oct(12) Jun(8) Jul(13)-Feb(16)</td>
</tr>
<tr>
<td>Idaho</td>
<td>0.0002</td>
<td>36.28</td>
<td>Jun(14)</td>
<td>Aug(12) Feb(17) Jan(10)</td>
</tr>
<tr>
<td>Illinois</td>
<td>&lt;0.0001</td>
<td>26.16</td>
<td>Jun/Aug(15)</td>
<td>May/Nov(2) Jan/Feb(17)</td>
</tr>
<tr>
<td>Indiana</td>
<td>&lt;0.0001</td>
<td>27.35</td>
<td>Jun(17)</td>
<td>Aug(8) Feb(17) Jan(14)</td>
</tr>
<tr>
<td>Iowa</td>
<td>&lt;0.0001</td>
<td>32.61</td>
<td>Jun(17) Aug/Dec(5)</td>
<td>Feb(17) Jan(15)</td>
</tr>
<tr>
<td>Kansas</td>
<td>&lt;0.0001</td>
<td>24.35</td>
<td>Jul(14)</td>
<td>Aug(9) Feb(17) Jan(7)</td>
</tr>
<tr>
<td>Kentucky</td>
<td>0.2371</td>
<td>41.76</td>
<td>Jun(17)</td>
<td>May/Dec(7) Feb(17) Jan(10)</td>
</tr>
<tr>
<td>Louisiana</td>
<td>&lt;0.0001</td>
<td>30.75</td>
<td>Jun(17)</td>
<td>May(7) Feb(17) Jan(7)</td>
</tr>
<tr>
<td>Maine</td>
<td>&lt;0.0001</td>
<td>30.63</td>
<td>Aug(17)</td>
<td>Jun(9) Feb(5) Jan(12)</td>
</tr>
<tr>
<td>Maryland</td>
<td>&lt;0.0001</td>
<td>28.16</td>
<td>Aug(8)</td>
<td>Jun(7) Jan/Feb(17)</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>&lt;0.0001</td>
<td>30.49</td>
<td>Jun(17)</td>
<td>Aug(8) Feb(17) Jan(14)</td>
</tr>
<tr>
<td>Michigan</td>
<td>&lt;0.0001</td>
<td>19.85</td>
<td>Jul(18)</td>
<td>Mar(17) Feb(13)</td>
</tr>
<tr>
<td>Minnesota</td>
<td>&lt;0.0001</td>
<td>35.46</td>
<td>Jun(13)</td>
<td>May(6) Feb(16) Jan(8)</td>
</tr>
<tr>
<td>Mississippi</td>
<td>0.0913</td>
<td>23.02</td>
<td>Jun(17)</td>
<td>May(7) Feb(17) Jan(8)</td>
</tr>
<tr>
<td>Missouri</td>
<td>&lt;0.0001</td>
<td>20.18</td>
<td>Jul(15)</td>
<td>Aug(12) Feb(17) Mar(14)</td>
</tr>
<tr>
<td>Montana</td>
<td>0.0067</td>
<td>38.40</td>
<td>Aug(17)</td>
<td>Jun(9) Feb(7) Apr(6)</td>
</tr>
<tr>
<td>Nebraska</td>
<td>&lt;0.0001</td>
<td>29.32</td>
<td>Jun(14)</td>
<td>Aug(9) Feb(7) Jan(14)</td>
</tr>
<tr>
<td>Nevada</td>
<td>&lt;0.0001</td>
<td>20.12</td>
<td>Jun(11)</td>
<td>Jul(8) Feb(16) Mar(8)</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>&lt;0.0001</td>
<td>38.16</td>
<td>Jun/Aug(17)</td>
<td>Dec(10) Jan/Feb(17)</td>
</tr>
<tr>
<td>New Jersey</td>
<td>&lt;0.0001</td>
<td>27.43</td>
<td>Jun(16)</td>
<td>Dec(10) Jan/Feb(17)</td>
</tr>
<tr>
<td>New Mexico</td>
<td>&lt;0.0001</td>
<td>29.30</td>
<td>Jun(17)</td>
<td>Sep(11) Feb(12) Jan(10)</td>
</tr>
<tr>
<td>New York</td>
<td>&lt;0.0001</td>
<td>27.17</td>
<td>Apr(9)</td>
<td>Jun(8) Feb(17) Jan(9)</td>
</tr>
<tr>
<td>North Carolina</td>
<td>&lt;0.0001</td>
<td>35.29</td>
<td>Jun(13)</td>
<td>Jul(9) Feb/Mar(17)</td>
</tr>
<tr>
<td>North Dakota</td>
<td>&lt;0.0001</td>
<td>29.53</td>
<td>Jun/Aug(9)</td>
<td>Sep/Oct(5) Feb(12)</td>
</tr>
<tr>
<td>Ohio</td>
<td>&lt;0.0001</td>
<td>23.45</td>
<td>Jun(12)</td>
<td>Jul(10) Jan/Feb(17)</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>&lt;0.0001</td>
<td>27.59</td>
<td>Jun(17)</td>
<td>May(11) Jan/Feb(17)</td>
</tr>
<tr>
<td>Oregon</td>
<td>&lt;0.0001</td>
<td>28.45</td>
<td>Jun/Aug(10)</td>
<td>May(7) Feb(17) Jan(14)</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>&lt;0.0001</td>
<td>25.68</td>
<td>Jun(17)</td>
<td>Dec(6) Jan/Feb(17)</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>&lt;0.0001</td>
<td>30.87</td>
<td>Jun(15)</td>
<td>Aug(9) Feb(17) Jan(14)</td>
</tr>
<tr>
<td>South Carolina</td>
<td>0.1222</td>
<td>29.95</td>
<td>Jun(17)</td>
<td>Dec(7) Jan(17) Feb(14)</td>
</tr>
<tr>
<td>South Dakota</td>
<td>0.0128</td>
<td>34.99</td>
<td>Jun(11)</td>
<td>Jul(10) Feb(17) Nov(9)</td>
</tr>
<tr>
<td>Tennessee</td>
<td>&lt;0.0001</td>
<td>29.62</td>
<td>May(16)</td>
<td>Jun(10) Feb(17) Jan(10)</td>
</tr>
<tr>
<td>Texas</td>
<td>&lt;0.0001</td>
<td>27.65</td>
<td>Jun(13)</td>
<td>Dec(11) Feb(17) Jan(13)</td>
</tr>
<tr>
<td>Utah</td>
<td>0.1037</td>
<td>34.04</td>
<td>Aug(14)</td>
<td>Jun(12) Feb(7) Jul(5)</td>
</tr>
<tr>
<td>Vermont</td>
<td>&lt;0.0001</td>
<td>29.11</td>
<td>Aug(14)</td>
<td>Sep(12) Mar(12) Feb(11)</td>
</tr>
<tr>
<td>Virginia</td>
<td>&lt;0.0001</td>
<td>33.38</td>
<td>Jun(17)</td>
<td>Aug(9) Feb(17) Jan(8)</td>
</tr>
<tr>
<td>Washington</td>
<td>&lt;0.0001</td>
<td>26.53</td>
<td>Jun(12)</td>
<td>Aug(11) Feb(17) Jan(10)</td>
</tr>
<tr>
<td>West Virginia</td>
<td>0.0284</td>
<td>21.95</td>
<td>Aug(16)</td>
<td>Jun(12) Feb(16) Oct(8)</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>&lt;0.0001</td>
<td>24.17</td>
<td>Aug(14)</td>
<td>Jul(10) Mar(7) Feb(18)</td>
</tr>
<tr>
<td>Wyoming</td>
<td>0.0237</td>
<td>38.51</td>
<td>Aug(12)</td>
<td>Jun(10) Feb(14) May(7)</td>
</tr>
</tbody>
</table>

*All 34 (17×2) possible occurrences of “high-2” or “low-2” months are represented by the two tied “most frequent” months.
†Georgia has an abnormally large June (fiscal year) effect.

Two methods were used to examine seasonality. The first was spectral analysis, which identifies cyclical patterns in the data. If a cycle of a particular length is revealed to be important, then a systematic phenomenon is inferred to underlie the pattern. In the case of seasonality, a cycle of period 12 months would stand out, and the spectrogram of the data would be statistically different from that produced by a white noise or uniform random process (Bartlett’s test). The state level data contain a prominent 12 month cycle, indicating seasonality. In addition, for 46 out of the 51 locations studied, the spectrogram was significantly (5% level) different from that produced by a uniform random process (table 1, column 2).

Using the seasonality analysis, a number of indicators were generated. The p values in table 1, column 3 correspond to the null hypotheses of no stable seasonality in sales. At a significance level of 5%, the null hypothesis of no seasonality is rejected for all the states. In percentage terms, the seasonal effect is large—as column 4 shows, the mean annual range (difference between high and low factors) across the 17 years is about 30%. To put this in perspective, assuming a price elasticity of −0.4, a 30% drop in sales would require a 75% increase in cigarette prices.

Next, to identify the months for which sales were uniformly high or low for any state, for any one year cycle in the data, the two months with the highest and the two with the lowest seasonal components were selected, and the frequency of the appearance of the months in the “high-2” and “low-2” months was computed by state. Columns 5–8 show the most frequently appearing high and low months. February appears as a “low-2” month for all but one state, and June appears as a “high-2” month for 42 states. January and February are a “low” season for production of tobacco.

*This pattern is seemingly contrary to the popular belief that smokers tend to smoke more in winter (perhaps to keep warm) and less in summer.

†This was confirmed by parallel analyses of production data and discussions with an expert on the production of tobacco.
sales, and June, July, and August, a “high” season.

Possible causes of seasonality include the effect of climate on smoking behaviour (low in cold weather and high in mild weather, especially in view of now widespread indoor smoking restrictions across the USA), the timing of tax changes (December-January or June-July), the timing of the new fiscal year (June-July), and the timing of quitting efforts tied to New Year’s resolutions (December-January). In the obvious extension to this research, the determinants of this potentially important statistical phenomenon will be analysed in detail.

The present findings demonstrate that sales of cigarettes in the USA have a strong seasonal component. This has potential implications for the timing of cessation initiatives and other time dependent policies. The phenomenon of seasonality could hold the key to significant advances in tobacco control and in the management of a leading public health problem.

S Chandra
Graduate School of Public and International Affairs, University of Pittsburgh, Pittsburgh, Pennsylvania, USA

F J Chaloupka
Department of Economics, University of Illinois at Chicago, Chicago, Illinois, USA

Correspondence to: Siddharth Chandra, GSPIA, 3R25 Wesley W Posvar Hall, University of Pittsburgh, Pittsburgh, PA 15260, USA; schandra@pitt.edu

Acknowledgments

The authors gratefully acknowledge the support of the Substance Abuse Policy Research Program of the Robert Wood Johnson Foundation for supporting this work. Comments from Jonathan Caulkins and the excellent research assistance of Ascarya and Djamatulidin Abubakar are also gratefully acknowledged.

References

3 Orzechowski W, Walker RC. Monthly state-level data on tax-paid cigarette sales. Electronic file provided to Frank Chaloupka. (See also, for example, Orzechowski W, and Walker RC. The tax burden on tobacco: historical compilation, 1999. Arlington, Virginia: Orzechowski and Walker.)

Way-out developments at BATCO

Working in tobacco control, it is easy to get the impression that the tobacco industry is a united front, with all parties carefully avoiding internal divisions that might undermine the greater struggle against the “antis”. However, tobacco industry documents that have been made public as a result of litigation in the USA frequently reveal ruthless competition for market share, as well as intense suspicion about competitors’ activities. This was brought home to us recently when reading a 1977 document on “developments in the scientific field” by Dr Sydney J Green, then British American Tobacco’s (BAT’s) senior scientist for research and development. After several pages of unremarkable reports on industry and external research on low tar cigarettes and smoking and health, Green informed his readers about two “way-out” developments at BAT:

• Way-out development 1: “A way-out development is that of compounds (such as etorphine) which are 10,000 times as effective as analgesics [such as morphine and which are very addictive. It is theoretically possible (if politically unthinkable) to add analytically undetectable quantities of such materials to cigarettes to create brand allegiance. But this thought may suggest the possibility of such compounds occurring naturally.”

We are grateful to Dr Green for clarifying what “brand allegiance” really means for the tobacco industry.

• Way-out development 2: “Another way-out development, which arises from work done in a quite different area, is that it would now be quite feasible and quite inexpensive to produce an unacceptable off-taste in cigarettes from some factories for a prolonged period without approaching nearer than half to one mile.”

In the same spirit of scientific curiosity which no doubt motivated the BATCO researchers, we would be very interested to know the formula for this substance.

On a more serious note, while we were not able to come up with any plausible candidates for a substance that could make way-out development 2 feasible, we are concerned that Green was right about the feasibility of adding etorphine or some other addictive substance to cigarettes.

Green’s report followed an earlier memo from Keith D Kilburn to CI Ayres, expressing...
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. 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.1 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 view the 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 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 in 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 et al. and Scollo et al. 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.

S M McGhee, J H Edley, T H Lam
Department of Community Medicine, University of Hong Kong, Hong Kong

Correspondence to: Dr Sarah McGhee, Department of Community Medicine, University of Hong Kong, 21 Sassoon Road, Hong Kong; smmghee@hkucc.hku.hk

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.1 However, very little research has been carried out with NRT and the level of interest in using NRT is not known.2 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 informed consent via the verbal consent field 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 of trying to stop?” (“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 managerial occupations (85.0%, 176/207), and attended

References

W King, R Borland
VicHealth Centre for Tobacco Control, the Cancer Council Victoria, Victoria, Australia

M Christie
Department of Pharmacology and The Medical Foundation, University of Sydney, Sydney, New South Wales, Australia

Correspondence to: Bill King, VicHealth Centre for Tobacco Control, the Cancer Council Victoria, 1 Rathdowne St, Carlton, Victoria 3053, Australia; bill.king@cancervic.org.au

www.tobaccocontrol.com
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, 39.3% (59/150) of the women wanting to stop smoking reported smoking sufficient cigarettes per day (≥ 10) to be considered eligible for NRT. Interest in using NRT was significantly higher for those smoking at least 10 cigarettes a day (χ²: χ² = 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. This is likely to be because of the high number of Asian women in the local population. Encouraging 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.

M Ussher, R West
Department of Psychology, St George’s Hospital Medical School, London, UK

Correspondence to: Dr Michael Ussher, Department of Psychology, Hunter Wing, St George’s Hospital Medical School, University of London, Cranmer Terrace, London SW17 ORE, UK; m.ussher@sgms.ac.uk

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

Voodoo cigarillos: bids 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), 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 Voodoo cigarillos appear to be a new product emerging at a time when bili sales are vulnerable to increased regulations at the state and federal level, as well as higher cigarette excise taxes in 19 states in 2002. The Voodoo cigarillo may be a clever way for the tobacco industry to circumvent the regulations and restrictions imposed on bili sales. Voodoo cigarillos should be reliably tested to determine if manufacturers and vendors are in compliance with federal and state laws.

C Delnevo, M Hrywna, M J Lewis, S Yulis
University of Medicine and Dentistry of New Jersey School of Public Health, New Brunswick, New Jersey, USA

Correspondence to: Cristine Delnevo, 335 George Street, Liberty Plaza Suite 2200, New Brunswick, NJ 08903-2688, USA; delnevo@umdnj.edu

References

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. While all 50 states impose a tax on cigarettes, only 45 states impose a tax on cigars, which are lower than their cigarette tax. 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 bids, making sales to minors illegal. Illinois, Vermont, and West Virginia banned the sale of bids completely. More recently, California passed a bill prohibiting the sale, distribution or importation of bids except by businesses that prohibit minors, such as bars and casinos. Also, federal legislation to halt the importation of bids into the USA was introduced in 2001. If being sold as a cigarillo, Voodoo cigarillos would get around the ban on bili sales in some states.

This new product emerges at a time when bili 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. The Voodoo cigarillo may be a clever way for the tobacco industry to circumvent the regulations and restrictions imposed on bili sales. Voodoo cigarillos should be reliably tested to determine if manufacturers and vendors are in compliance with federal and state laws.

www.tobaccocontrol.com
Smoking in children’s picture books

The other day, one of the authors went to a public library with his 3 year old daughter to read some picture books to her. Various picture books, from classic to newly published, were available. Classic books are her favourite. First, she chose a book portraying adventures of a naughty monkey named Curious George (by HA Rey). He came to an industrialised country with a man in a yellow hat. My daughter pointed to a picture of the man holding a pipe between his lips. A smoking scene in a picture book for small children!

The next book she chose depicted an elephant named Babar (by Jean De Brunhoff) that fled from his country to Europe after his mother was killed by men. After coming back to his country with western technologies, he changed elephant society into Western-style society and became a king. Again, the King Babar was holding a pipe.

The third book was depicting a monster named Barbapapa living with François’ family (by Tison and Taylor). He had a mysterious ability to metamorphose into anything he desired. Unfortunately, in this attractive book, François’ father was always holding a pipe. Another supporting character was smoking a cigar. Smoking seems to be a symbol of manhood in these children’s picture books.

My daughter then opened books about Moominvalley (by Tove Jansson) and Tintin’s adventures (by Herge) in which some characters were smoking. Finally, I myself selected a book depicting Father Christmas (by Raymond Briggs). On Christmas Eve, Father Christmas delivers presents to children all over the world. After the labourious job, he took a rest smoking a cigar and a pipe.

Picture books reflect the norms or perceptions of our societies. These classic children’s books were first published in times when smoking was not widely acknowledged as harmful and a smoking male adult was one of the sex stereotypes. In addition, pipe smoking seems acceptable in such picture books compared with cigars or cigarettes which are seldom seen.

Caregivers frequently read picture books aloud to children at home, kindergartens, or daycare centres, which may have a considerable influence on preschool children. Young children receive strong messages from pictures. Seeing adult males smoking in picture books, they may take it as a desirable behaviour.

It would be unacceptable to remove smoking scenes from these classic books or eliminate the books themselves. What we can do is to become aware of the potential influence of these books and take a negative attitude to smoking when we read to children. Fortunately, the man in a yellow hat seems to have quit smoking in the new series of George’s adventures.

S Nakahara, S Wakai, M Ichikawa
Department of International Community Health, Graduate School of Medicine, The University of Tokyo, Japan

*Correspondence to: S Nakahara, 7-3-1, Hongo, Bunkyo-ku, Tokyo 113-0033, Japan; shinji@m.u-tokyo.ac.jp
Smoke-filled rooms: a postmortem on the tobacco deal


Smoke and mirrors

Cigarettes are a major cause of premature death. Cigarettes are addictive. Secondhand smoke can be annoying, but is really not enough of a health risk to justify banning smoking in indoor environments. Payments to states in the Master Settlement Agreement were unjustified since cigarettes are self-financing. States actually save money because smokers die young. Lawsuits against the tobacco industry are without merit, since smokers have long known about the health risks. Continuing efforts to warn the public about the health risks of smoking are unwarranted since public awareness of these risks are now universal. Filters and low tar technology have made cigarette smoking safer, but make smoking annoying. It is more difficult to encourage cigarette manufacturers to produce a less toxic cigarette. The government should focus on giving smokers information about the risks posed by smoking. The rest market competition in the development of safer cigarettes while at the same time providing money to tobacco companies to enter the market, thus dampening competition for the development of potentially safer tobacco products. Viscusi ignores evidence revealing how cigarette manufacturers have designed their cigarettes to induce dependency on nicotine. Viscusi ignores evidence revealing how cigarette manufacturers have designed their cigarettes to induce dependency on nicotine. Viscusi ought to take a look in the mirror.

Viscusi's chapter on the factors involved in declining cigarette consumption in the USA since the 1960s corresponds directly to increased efforts to inform the public of the dangers of tobacco use. Viscusi's criticism of the current wave of edgy in your face counter-advertising campaigns ignores the evidence that these programmes are actually reducing cigarette consumption. Instead of continuing these effective public health campaigns, Viscusi recommends that the government refocus its efforts towards giving smokers information about the risks posed by different types of cigarettes in the hope that this would move smokers to use less toxic cigarettes.

Viscusi is correct in noting an important deficiency of the Master Settlement Agreement that has made it difficult for new tobacco companies to enter the market, thus dampening competition for the development of potentially safer tobacco products. However, his credibility on this subject is diminished by his acceptance of the view that the health benefits of filtered and low tar cigarettes have actually benefited the public's health. Convincing evidence to demonstrate a measurable public health benefit gained from lowering the machine measured tar yield of cigarettes has proven elusive. Moreover, on a population wide basis, a strong argument can be made that the marketing of lower tar cigarette brands had an adverse impact on the public's health by convincing a segment of smokers who might have otherwise stopped smoking to maintain their smoking behaviour under the illusion that their disease risk would be reduced by switching to a filtered low tar cigarette.

In summary, Smoked-filled rooms reads more like a legal brief written by a team of tobacco industry lawyers instead of a thoughtful commentary on the legal, financial, and social consequences of smoking. As such this book is a must read for plaintiffs' attorneys, but for the rest of us we should stick with "smoke-free rooms".

K M Cummings

References

4 Hurt RD, Robertson CR. Prying open the door to the cigarette industry’s secrets about nicotine – the Minnesota tobacco trial. JAMA 1998;280:1173–81.

Disclosure
K Michael Cummings is not an unbiased observer of Dr Viscusi’s research and writings. He has served as a paid expert witness on behalf of plaintiffs counsel in several of the same cases in which Dr Viscusi also served as an expert for the cigarette industry. Dr Cummings is currently employed as a senior research scientist and is chairman of the Department of Health Behavior in the Division of Cancer Prevention and Population Sciences at the Roswell Park Cancer Institute in Buffalo, New York, USA. His salary support comes primarily from Roswell Park Cancer Institute and from research funding provided by the National Cancer Institute, the Robert Wood Johnson Foundation, the American Legacy Foundation, and New York State Department of Health. Dr Cummings serves on the medical advisory board for the Flight Attendant Medical Research Institute (FAMRI) and has served on various scientific advisory boards and grant review committees for National Institutes of Health, Centers for Disease Control and Prevention, American Cancer Society, Canadian National Cancer Institute, Robert Wood Johnson Foundation, and state and local health agencies for which he has received honoraria. Dr Cummings has also received honoraria and has accepted hospitality and on a few occasions, travel costs, from pharmaceutical companies making tobacco dependence treatment products.
How to critique consultancy reports?

S M McGhee, A J Hedley and T H Lam

*Tob Control* 2003 12: 108
doi: 10.1136/tc.12.1.108

Updated information and services can be found at:
http://tobaccocontrol.bmj.com/content/12/1/108.1

**These include:**

**References**
This article cites 1 articles, 1 of which you can access for free at:
http://tobaccocontrol.bmj.com/content/12/1/108.1#BIBL

**Email alerting service**
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/