

**Table 1** Multiple linear regression for monthly cigarette tax stamps or sales, 1999–2006

Predictor variables	Outcome = monthly cigarette sales	
	Unstandardised $\beta$	Standardised $\beta$
Intercept	2574105.8	
Average daily temperature	123746.2	0.261**
Excise tax	-8721370.0	-0.825**
Number of days in the month	1280219.4	0.142**
		Adjusted $R^2=0.779$

\*\* $p<0.00$ 

three consecutive times; each increase coincided with the beginning of fiscal years 2003, 2004 and 2005. Thus, high rates in June and lower rates in July (292 million)<sup>5</sup> may be attributed to wholesale distributors ‘hoarding’ cigarettes in June in anticipation of higher prices in July when new tax increases take effect.

All correlations between monthly cigarette sales and the predictor variables were significant; the strongest correlation was for excise tax rate ( $r = -0.826$ ,  $p < 0.00$ ). In the regression, cigarette excise tax rate remained the strongest predictor of cigarette sales, followed by the average daily temperature and the number of days in the month, which were also significant (table 1).

These results further support the notion that the recent increases in indoor air restrictions, which force smokers outdoors to smoke,<sup>6</sup> may contribute to the seasonal changes in cigarette-smoking behaviour. Our findings point to the importance of controlling for the number of days in a month when examining seasonality. Previous research suggested that February, a winter month in the northern hemisphere, had the lowest cigarette consumption, but February also has the distinction of being the month with the fewest days. Thus, February’s status as the month with the lowest cigarette sales<sup>1</sup> may be because of the weather conditions and also because it has fewer days for distributors to purchase tobacco. Although these data are limited to New Jersey for the period 1999–2006, these results are consistent with previous research<sup>1–4</sup> and add to the evidence that cigarette-smoking behaviour has a seasonality component.

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## Flavoured tobacco products with marijuana names

Flavoured tobacco products with marijuana names are sold in gas (petrol) stations in the US. The terms kush and purple haze are common names for marijuana. In addition, many rap artists are using these names in their music to describe specific types of marijuana.

The tobacco products are called blunt wraps. Blunt wraps are similar to cigarette-rolling papers, but are made of tobacco. The tobacco companies selling the products are Royal Blunts (www.royalblunts.com) and True Blunts (www.trueblunt.com), subsidiaries of



**Figure 1** Blunt wrap packaging for True Blunts’s kush (left) and Royal Blunts’s purple haze (right). The products were obtained from a BP Amoco gas station located in Chamblee, Georgia, USA. Photograph provided by George Crawford.

New Image Global Incorporated (http://www.newimageglobal.com). The brands include True Blunts’s kush and Royal Blunts’s purple haze (fig 1). Kush is slang for Hindu kush, a type of marijuana. Purple haze is slang for a type of marijuana that is purple in colour. According to the companies, kush has a citrus fruit flavour and purple haze has a grape flavour.

It is widely known among youth that marijuana smokers use blunt wraps to roll cigars filled with marijuana.

Rappers use the terms kush and purple haze (purp, purple and haze) in their music to describe marijuana. In ‘Snap Ya Fingers Remix’, Rapper Sean Paul says, ‘rollin’ up tha kush’. In ‘Top Back’, Rapper TI says ‘on this purp I blow’.

It seems that the New Image Global company is working to make marijuana names and their tobacco brand names synonymous, thus linking two behaviours.

Tobacco control advocates should collaborate with policymakers and anti-drug advocates in an effort to prohibit or regulate the sale of tobacco products with marijuana names.

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## Access to cheaper cross-border cigarettes may decrease smoking cessation intentions in Germany

When cigarette prices increase, some smokers reduce the number of cigarettes they smoke or try to quit, whereas others switch to cheaper brands or tobacco products.<sup>1–4</sup> Another way of avoiding an increase in cigarette price is to purchase cigarettes in other countries where prices are lower. Cross-border shopping of cigarettes is attractive for smokers in Germany because it is centrally located in Europe and cigarettes are more expensive in Germany compared with some neighbouring countries. In December 2004 and September 2005, the German government increased cigarette excise tax by € 1.2 cent per cigarette in each case. The purpose of this study was to test the hypothesis that access to cheaper cigarettes through cross-border shopping may decrease smokers’ intention to change smoking behaviour before these price increases.

Computer-assisted face-to-face interviews with a representative sample of the German population were carried out. A total of 6126 people aged 14–93 years were interviewed in November 2004 and August 2005 before each tax increase. As the surveys were identical, both samples were analysed together. The mean sample age was 47.27 years (standard deviation 17.69), with 53.59% women and 1868 (30.49%) reporting to be smokers.

Smokers were asked whether the upcoming tax increase would be a reason to reflect on their smoking behaviour, whether they intended to reduce smoking, quit smoking, switch to a cheaper brand or not to change their behaviour, and where they purchased cigarettes. Those who reported purchasing cigarettes in foreign countries were classified as cross-border shoppers.