



Smoker (mis)perceptions associated with pack colouring: national survey data

Background—Several studies have concluded that “light” and “mild” descriptors on cigarette packs lead smokers to assume that cigarettes labelled in this way pose a lower health risk than “full flavour” or “regular” cigarettes.^{1–4}

In response to the bans several countries have imposed on these descriptors, the tobacco industry has introduced “colour coded” packs and specific pack colours for different brand variants,⁵ a pattern that is also evident in New Zealand.^{6,7} As a result, smokers have been conditioned to interpret lighter pack colours (e.g. white, silver or blue) to signify “lighter” cigarettes.⁵

This is a health issue given that smokers mistakenly believe cigarettes from lightly coloured packs are less harmful and less addictive.^{8,9} We therefore aimed to determine how New Zealand smokers interpret cigarette pack colouring.

Methods—The New Zealand arm of the International Tobacco Control Policy Evaluation Survey (ITC Project) derives its sample from the New Zealand Health Survey (a representative national sample with boosted sampling of Māori, Pacific and Asian NZers). In wave two, conducted between March 2008 and February 2009 (n=923 respondents), we asked about perceptions of tobacco packaging. Further detail on the survey methods are available in an online *Methods Report*¹⁰ and in related publications.^{11,12}

Results—Around a third of smokers said that they obtained at least some “useful information on how cigarettes taste” from the pack colour (35.3%, 95%CI=30.9–39.7). This was less than the equivalent ratings for tar and nicotine levels of the brand (43.5%); brand descriptor words such as “smooth” and “ultra” (50.4%), and “light” and “mild” (65.1%). The latter is notable since at this time of this wave two survey most tobacco packaging no longer used “light” and “mild” descriptors even though the Commerce Commission Inquiry into this matter did not report until September 2008.¹³

Obtaining information about taste from pack colour was reported more frequently in younger age groups (p-value for trend: $p < 0.00001$) (Figure 1). This was also the pattern for increasing individual deprivation scores (p-value for trend: $p = 0.0002$) (Figure 2). Māori and other ethnic groups also showed this pattern compared to European smokers, but not at a statistically significant level (Figure 3).

In two multivariate models, younger smokers were significantly more likely to report that the pack colour provided useful information on taste (but in the fully-adjusted “Model 3” this was only statistically significant for the comparison between the 35–49 age group and the 50+ age group; i.e. adjusted odds ratio=1.88; 95%CI=1.07–3.30). This model adjusted for variables relating to demographics, socioeconomic position, mental health, and smoking-related beliefs/behaviours (the full table of results is available on request).

Figure 1. Percentage of New Zealand smokers who believe that pack colouring provides useful information about cigarette taste by age group

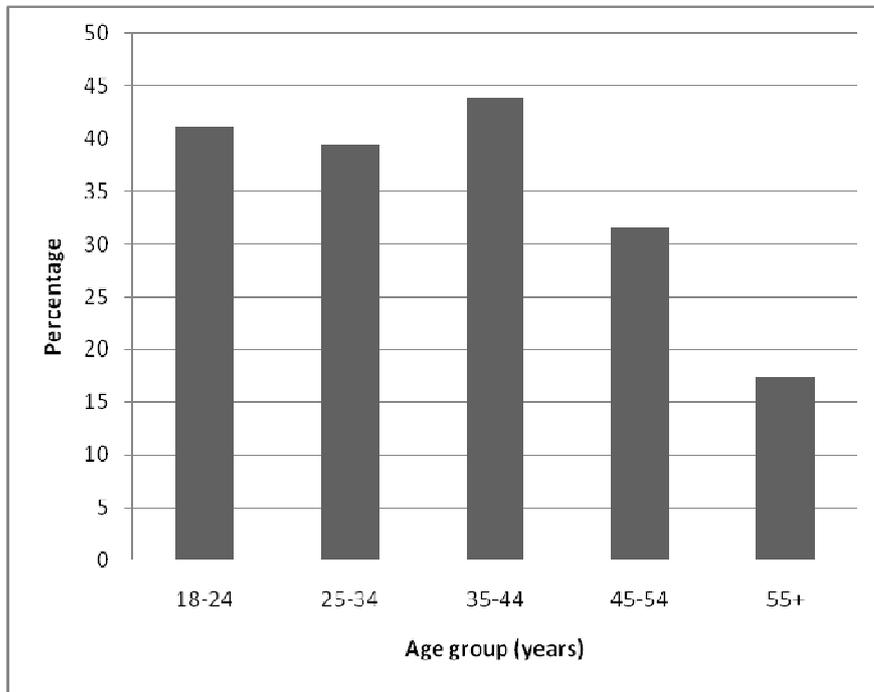


Figure 2. Percentage of New Zealand smokers who believe that pack colouring provides useful information about cigarette taste by individual deprivation level (NZiDep)

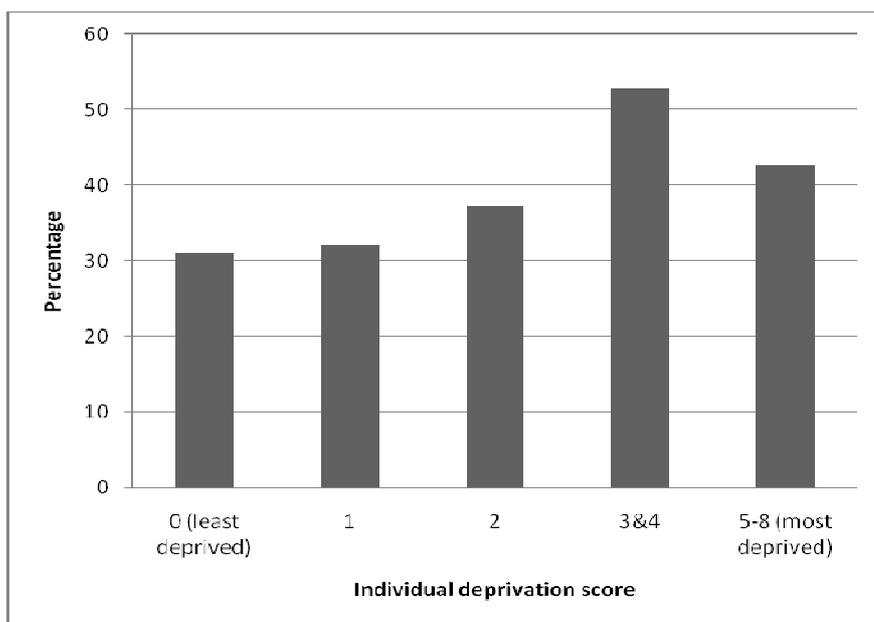
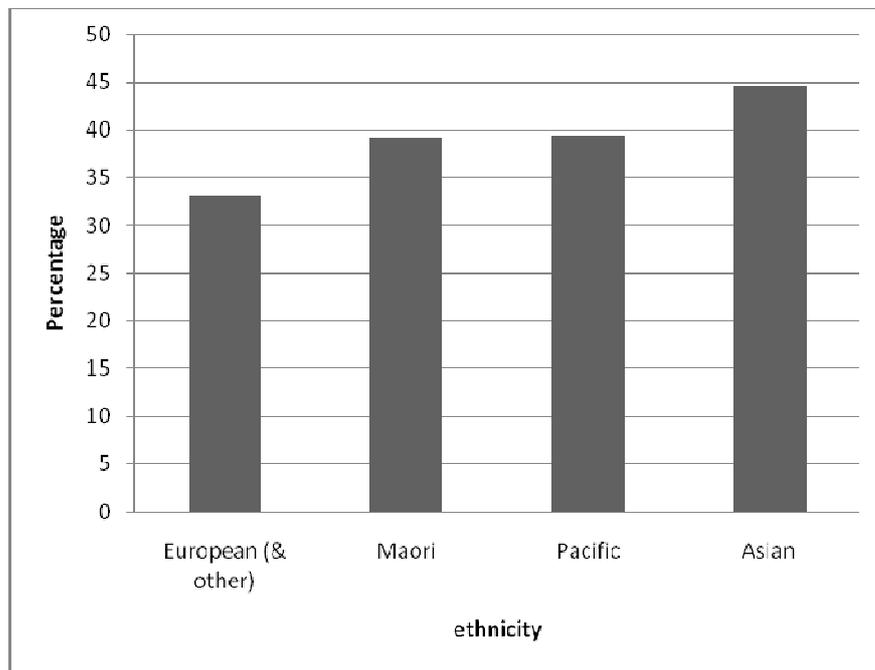


Figure 3. Percentage of New Zealand smokers who believe that pack colouring provides useful information about cigarette taste by ethnicity



Discussion—These findings indicate that New Zealand smokers (and especially younger smokers) commonly say that pack colour gives them useful information about cigarette taste. Such findings are consistent with the international literature that is more specifically focused on pack colour and perceptions of health risk.^{8,9} Given this picture along with the evidence of misperceptions concerning “light” cigarettes (including for New Zealand¹⁴) and findings that some smokers believe that cigarettes tasting “less strong” are less harmful,² differential pack colouring is likely to maintain and reinforce these false beliefs.

Together with evidence that New Zealand smokers frequently hold various other health risk misperceptions,¹⁵ these findings add further weight to calls for precautionary policy responses. These could include regulations introducing plain packaging of tobacco products (as planned by the Australian Government¹⁶) with all packs mandated to be a single colour. Alternately, regulations could require larger pictorial health warnings on packs, which would displace coloured surfaces and branding imagery.

Such policies could play an important supplementary role in a clear endgame strategy that rapidly halts the tobacco epidemic in New Zealand (e.g. by phasing out sales; see references¹⁷⁻¹⁹ for further details).

Given the current inquiry into the tobacco industry by the Māori Affairs Select Committee, we suggest the established body of evidence regarding deceptive tobacco packaging merits a robust policy response.

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