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Innovations that harm: tobacco product and packaging in low-income and middle-income countries

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Innovation is generally regarded as positive, however, what is good for business can prove bad for public health. Innovation is recognised by the tobacco industry as a key strategy for growth and maintaining positive consumer perceptions of brands.¹ There can be product innovation related to new cigarette brands and variants, and packaging innovation which refers to changes made to the pack design and marketing elements.² Innovation in this context can also refer to ways the tobacco industry responds to new tobacco packaging and labelling policies to reduce their effectiveness.

The vast majority (80%) of the world's 1.3 billion smokers live in low- and middle-income countries (LMICs), as classified by the World Bank according to gross national income.³ In line with the WHO Framework Convention on Tobacco Control (WHO FCTC), many countries have made great progress in implementing tobacco control policies, particularly LMICs in banning tobacco advertising, promotion and sponsorship (TAPS). Seventy-five per cent of the countries with comprehensive TAPS bans are LMICs.³ These restrictions to tobacco advertising for television, magazines, billboards and points of sale have made the tobacco pack an increasingly important way for the tobacco industry to communicate with current and prospective smokers. Cigarette packs act as miniature billboards for the product and are used by the tobacco industry to increase appeal and minimise fears of the deleterious health effects of their products. Four major themes focusing on new tobacco industry strategies to reduce effectiveness of tobacco packaging and labelling policies, and innovations in tobacco product and packaging in LMICs, are discussed here: (1) manipulation of health warning labels (HWLs), (2)

changes to pack structure and maximal use of surface area for advertising, (3) proliferation of and emergence of flavour capsules and concept flavour descriptors and (4) pack design features that communicate 'less harm'.

MANIPULATION OF HWLS

Policies requiring graphic HWLs on tobacco products are a powerful and cost-effective way to reduce tobacco consumption. Policies requiring large HWLs with pictures have increased over time. Twenty-four countries/jurisdictions met the WHO FCTC recommended 50% graphic HWL provision in 2008 and 122 met them as of October 2021, covering 70% of the world's population.⁴ HWLs that are ineffectively implemented cannot, however, be as impactful. Obscuration of HWLs by tax stamps is one potentially problematic practise. An examination of packs from LMICs that require HWLs and tax stamps found that in four countries (Brazil, Indonesia, Thailand and Vietnam) most packs had a HWL that was obscured by the stamp.⁵ In Brazil and Indonesia, this practise is explicitly prohibited by law.⁵ The law in Vietnam does not prohibit it and the law in Thailand is ambiguous.⁵ There is also evidence of explicit manipulation of HWLs on smokeless tobacco packs purchased in rural India in 2017, with HWLs being blurred in parts, stretched and tinted.⁶ Further, HWLs on cigarette packs purchased in Pakistan, a lower middle-income country, in 2019 and 2020 were manipulated such that they were tinted, faded, blurred, the background colour was changed and the size of throat cancer included in the HWL image was reduced.⁷



Figure 1 Examples of pack surfaces (from LMICs) used for advertising— (A) exposed surface area when pack is open, (B) foil, (C) under flip top lid, (D) sliding flip top, (E) book opening, (F) butterfly opening, (G) insert featuring contest, (H) insert featuring marketing appeal, (I) pack with QR code. LMICs, low- and middle-income countries.

CHANGES TO PACK STRUCTURE AND MAXIMAL USE OF SURFACE AREA FOR ADVERTISING

Larger HWLs mean less space for tobacco companies to use for marketing. However, tobacco companies have found ways to increase and/or maximise the space available for marketing on packs. **Figure 1** shows images of packs from several LMICs. The space visible on opening the pack has been used to carry designs and marketing elements (eg, less smoke, filter technology, capsule information)—for example, on exposed packaging (**figure 1A**), foil (**figure 1B**) or under the flip top lid (**figure 1C**). Companies have used a sliding flip top (**figure 1D**), book opening (**figure 1E**) and butterfly opening (**figure 1F**) to create more exposed packaging that is not included in the pack’s primary panels and can be used for branding and marketing appeals. Packs also feature the use of inserts, which can include information about contests (**figure 1G**) or marketing appeals (**figure 1H**), and QR codes (**figure 1I**) that lead current and potential smokers to websites that include engagement strategies and marketing appeals.⁸

In these spaces available for advertising, beautiful, bright colours and patterns, intricate imagery, shiny and textured surfaces, and holograms are used to appeal to customers. Cigarette packs continue to associate the product with luxury, masculinity, femininity, freedom, sophistication, tradition, modernity, nature and technology. All of these potentially undermine messages being conveyed via HWLs.

PROLIFERATION OF FLAVORS AND EMERGENCE OF FLAVOUR CAPSULES AND CONCEPT FLAVOR DESCRIPTORS

Tobacco companies have used enticing and appealing flavours to maintain and grow their customer base. Smokers and non-smokers, including adolescents,



Figure 2 Top row: flavour capsule cigarettes with two capsules per stick, Brazil (front of pack and single stick); bottom row: flavour capsule cigarettes with three capsules, Mexico (back of pack and open front of pack).

perceive flavoured products as less harmful than unflavoured ones.^{9 10} While some countries have banned flavour additives or characterising flavours in tobacco products,¹¹ flavoured tobacco products remain prevalent in many other countries including in LMICs.¹²

Tobacco companies introduced flavour capsule cigarettes in 2007, and they have continued to gain market share worldwide.^{13 14} Flavour capsule cigarettes have a capsule in the filter that users can crush to release a flavour, at the time of their choosing as they smoke the cigarette. Some cigarettes have two or more flavour capsules in the filter, which release different flavours and can be indicated by different colours on the pack and on the sticks (**figure 2**). Flavoured cigarettes, including flavour capsule cigarettes, are often sold in colourful, vibrant packaging that are attractive to youth and young adults.^{15 16} Flavoured capsule cigarettes are heavily advertised at the point-of-sale in some LMICs like Guatemala, an upper middle-income country, where more ads for them were found than for non-flavoured cigarettes.¹⁷

Perhaps in an attempt to get around bans on characterising flavours, the tobacco industry has introduced ‘concept descriptors’ on cigarette packs. These include names such as ‘Velvet Fusion Blast’, ‘Polar Pearls’ and ‘Ibiza Sunset’ that imply the user will experience a flavour, sensation, taste or aroma and also have positive health and lifestyle connotations.¹¹

MARKETING ELEMENTS THAT COMMUNICATE 'LESS HARM'

With the emergence of bans on descriptors used to convey less harm like 'low tar', 'light' and 'mild', which are generally complied with, tobacco companies have developed alternative descriptors, including colours and slim packaging to falsely convey reduced risk.¹⁸ Alternative descriptors like 'smooth' and 'mellow'; colours such as 'silver', 'blue' and 'gold'; and slim cigarette packaging inaccurately convey a less harmful product to consumers.^{19 20}

The descriptors 'natural', 'organic' and 'additive-free', have been successfully used by the tobacco industry in the USA and Canada to mislead consumers and convey reduced risk and are now used on packs in some LMICs.²¹⁻²³ The use of the phrase 'less smoke smell' and similar phrases have also been documented on tobacco packaging in LMICs, including by brands manufactured by three major transnational tobacco companies.²⁴

ADDRESSING INNOVATIONS IN TOBACCO PRODUCT AND PACKAGING

Innovations can be positive, but the innovations presented here only serve to create and prolong disease and death from tobacco products. Tobacco companies continue to drive sales through innovations that increase product attractiveness and generate product interest. Some of the innovations described here can be addressed through adoption and effective implementation of existing WHO FCTC recommendations. For example, manipulation of HWLs, such as in India and Pakistan, calls for effective implementation and enforcement of HWL guidelines set forth by relevant government agencies. To address innovations, such as flavour capsules and concept descriptors, policymakers should enact strong regulations in keeping with the WHO FCTC recommendation to reduce tobacco product appeal. In line with Article 13 of the WHO FCTC, policymakers should also adopt plain and standardised packaging to address the effect of advertising on packaging related to changes in pack structure, maximal use of the pack surface area for advertising, and design that drives harm misperceptions. By the end of 2020, 17 countries, including 3 LMICs, had adopted plain packaging.³

Innovations in tobacco product and packaging also call for innovations in tobacco control policy—even in 'dark' markets with comprehensive tobacco control policies, tobacco industry marketing strategies and product offerings can fuel growth.^{13 25 26} An example of such tobacco control policies is a single presentation policy in Uruguay that limits tobacco companies to selling a single variant per cigarette brand which was successfully upheld against Philip Morris International's legal threats.²⁷ The recent regulatory challenges posed by synthetic nicotine, often not addressed by current tobacco control regulations,²⁸ serves as a

warning to anticipate other synthetic forms, such as synthetic compounds that mimic menthol's cooling effects.²⁹

Our response to tobacco innovations requires a multi-pronged approach consisting of evidence-based solutions espoused by the WHO FCTC and aggressive tobacco control policies that align with what has been found through monitoring of the tobacco market. We must counteract harmful and ongoing innovations with equally inventive solutions. Increasingly common discourse around the tobacco endgame calls for and poses innovative solutions to ending tobacco sales and use.³⁰ While the onus should be placed on the tobacco industry to halt the tobacco epidemic, a long history of tobacco industry deception proves we cannot rely on them to do so. As described here, the tobacco industry continues to innovate in the combustible cigarette market despite industry claims such as BAT and PMI's that they are shifting their focus to 'reduced risk alternatives'. Among the things that are certain, tobacco industry innovation is another. However, early death by tobacco does not have to be.

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