

Plain packaging of tobacco products in Brazil: the contribution of science to the decision to safeguard the human right to health

Adoção de embalagens padronizadas de produtos de tabaco no Brasil: contribuição da ciência da decisão à proteção do direito humano à saúde

Embalaje simple de productos de tabaco en Brasil: la contribución de la ciencia a la decisión de salvaguardar el derecho humano a la salud

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Smoking is a serious global health problem (and the leading cause of preventable death), currently causing nearly six million deaths every year from direct consumption or indirect exposure, of which one million occur in the Americas ¹. Given this reality and the addictive nature of tobacco, public policies are needed to reduce (or eliminate) tobacco consumption, especially cigarettes ^{2,3}. The World Health Organization (WHO) thus launched negotiations in the 1990s for the first multilateral treaty to protect the human right to health, through the Framework Convention on Tobacco Control (FCTC) ³, in force since February 27, 2005. A milestone in human rights that places the right to health above trade agreements and copyright treaties, the FCTC recommended a series of measures to reduce the demand for tobacco, especially by controlling consumption (i.e., education, addiction treatment), marketing (i.e., prices, taxes, content, packaging, advertising), and measures against exposure to tobacco smoke in society. Importantly, the FCTC also includes provisions on reduction of the tobacco supply, environmental protection, accountability issues, scientific and technical cooperation, and communication of information.

The changes recommended by the FCTC include a ban on tobacco sales (especially cigarettes) in packaging that displays the company colors and logos associated with brands ³. These would be replaced by new packaging with standard dimensions in which the background would be a single color, with warning labels and images on the health risks from tobacco. The only carry-over from the old display would be the brand name, but always printed in the same font, color, and size, since cigarette and other tobacco product packages influence individual perception and are thus capable of “tricking” the products’ consumers ³.

When the tobacco industry perceived the threat to one of its promotional tools, it launched a series of maneuvers against the adoption of plain packaging, arguing that the effectiveness of such changes had not been proven scientifically and that the change would have no real effect on tobacco consumption ⁴. In reaction to these maneuvers, a series of studies were conducted with smokers and non-smokers to investigate the psychological (i.e., perception), social (i.e., social appeal), and biological effect (i.e., neurological activation) of cigarette pack images on smoking prevalence and prevention. The aim of the current article is to present the results of these studies – and thus the scientific argument behind this specific provision in the FCTC that has motivated bills of law in Brazil and elsewhere in the world.

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Studies have generally shown that when compared to non-smokers, smokers consider cigarettes less harmful to health⁵. Tobacco products in plain packs are generally perceived as having higher levels of toxicity and health risk when compared to brand packs^{6,7}, thus reducing the demand for tobacco⁸. Neuroimaging studies show that brand packs activate brain areas related to reward processing (i.e., ventral striatum, inferior frontal gyrus, and ventromedial prefrontal cortex)^{9,10}.

Other studies suggest that warnings on the hazards of tobacco are perceived more readily when presented on plain packaging^{11,12}. A meta-analysis comparing graphic and text messages concluded that graphic warnings are more effective than text-only warnings in reducing tobacco consumption¹³. The inclusion of graphic warnings produces greater activation of areas of the brain responsible for cognitive and emotional decisions (i.e., medial prefrontal cortex and amygdala)^{14,15}, as well as areas involved in processing self-regulation (i.e., medial prefrontal cortex), associated with motivation to eliminate consumption^{14,16}. Concerning the packaging color and format, packs with a white background (both plain and conventional brand packs) and with a more attractive format (e.g., lipstick for women) suggest less risk to health when compared to plain brown packs or branded packs with different-colored backgrounds^{17,18}.

From the social point of view, studies show that plain packaging reduces the appeal and attractiveness of tobacco consumption and produces a negative perception of the cigarette's flavor (compared to cigarettes in brand packs)^{19,20,21,22}. The perception towards individuals that smoke also changes: smokers of tobacco products with plain packs are seen as addicts, outdated, and belonging to a lower social class than smokers of brand packs^{7,23,24}.

In light of such extensive evidence²⁵, numerous countries have begun to adopt public policies to change tobacco product packaging. In just over 15 years, 105 countries have enacted public policies to control tobacco consumption through graphic warnings on cigarette packs and other tobacco products. Brazil was the second country in the world to suggest the use of graphic health warnings on cigarette packs, in 2002, even before the country ratified the FCTC²⁶. Since then, different guidelines have been established to control smoking, such as restrictions that included a ban on cigarette advertising on TV and other in mass media such as magazines, newspapers, billboards, and radio. However, the country has still not adopted a public policy to enforce plain packaging on tobacco products, as suggested by Articles 11 and 13 of the FCTC³. Meanwhile, the combination of brand packs and graphic health warnings sends an inconsistent health message to consumers²⁴. The WHO recommendation of completely standardized, plain packaging appears to be ideal for promoting healthy habit changes in the population²⁵.

Australia was the first country to adopt completely standardized plain packaging through the Tobacco Plain Packaging Act 2011, in force since 2012. The United Kingdom and France began the implementation process in 2016, and Hungary has similar plans for 2018. At least 14 other countries, including Canada, Norway, South Africa, Uruguay, New Zealand, and Thailand, are developing a formal process or are formally considering plain packaging²⁷.

The Brazilian National Congress is currently reviewing three bills of law on plain packaging. The first bill, *PLS 103/2014* (<https://www25.senado.leg.br/web/atividade/materias/-/materia/116679>), proposes plain packaging with no advertising features, only the brand name in black lettering on a white background, and with health warnings on smoking. *PL 1,744/2015* (<http://www.camara.gov.br/proposicoesWeb/fichadetramitacao?idProposicao=1301095>) is similar to the previous bill, but leaves the definition of the standardized color on the inner and outer surfaces of the packs and the brand name's color, size, and font to a regulation to be issued by the National Health Regulatory Agency (Anvisa). Finally, *PLS 769/2015* (<https://www25.senado.leg.br/web/atividade/materias/-/materia/124339?o=d>), also proposes the implementation of plain packaging based on standards regulated by Anvisa, while adding a ban on flavor additives in cigarettes, defining smoking in automobiles as a traffic violation when there are passengers under 18 years of age, and banning advertisement of cigarettes and other tobacco products.

Such bills are consistent with the results of international studies and research in Brazil showing that the use of completely standardized plain packaging reduces the social appeal of tobacco consumption in adolescents and young adults when compared to partially standardized plain packaging (the dimensions of which are standardized, with a single-color background, but containing additional descriptors on content, e.g., flavor) and the use of packs with the brands displayed²². However, pas-

sage of these bills is uncertain, since there are members of Congress that lobby for the tobacco industry's interests and employ various strategies to block such legislation, as noted by Valeska Figueiredo, coordinator of the Center for Studies on Tobacco and Health at the Sergio Arouca National School of Public Health, Oswaldo Cruz Foundation (Cetab/Ensp/Fiocruz)²⁸. The stance against plain packaging makes no sense, given the need to safeguard the human right to health and in light of the scientific consensus. Many tobacco-related diseases can be prevented or reduced by government action based on WHO recommendations for the adoption of plain packaging. The studies reviewed here show promising evidence of effectiveness in the reduction of tobacco consumption through plain packaging with graphic and text warnings on health hazards.

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