World Health Organization

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In reply please refer to:

Your reference:

Ministry of Health
16 College Road
College of Medicine Building
Singapore 169854
Attention: Director, Epidemiology and Disease Control Division

13 March 2018

Dear Sir/Madam,

Public Consultation on Proposal to Introduce Standardised Packaging of Tobacco Products in Singapore

I write in response to Singapore's request for public comments on proposed tobacco control measures and specifically with respect to the standardized packaging proposal (SP Proposal) therein.

Congratulations on development of the SP Proposal. If implemented, the SP Proposal will implement the WHO Framework Convention on Tobacco Control (WHO FCTC) and its Guidelines and further contribute to Singapore's comprehensive approach to tobacco control.

In March 2016, WHO responded to an earlier public consultation on proposed tobacco control measures in Singapore, including plain (standardized) packaging. In that response, WHO summarized the international evidence underpinning plain packaging, as well as relevant international instruments, such as the WHO FCTC. I have enclosed that submission for your reference and this letter should be read in conjunction with it.

WHO recommendations on plain packaging

In 2016, WHO made public recommendations on policy design for plain packaging (see http://apps.who.int/iris/bitstream/10665/207478/1/9789241565226_eng.pdf). WHO is pleased that the SP Proposal is consistent with those recommendations and, in particular, the recommendation that plain packaging be applied to all categories of tobacco products. The WHO FCTC does not distinguish between different types of tobacco products for purposes of plain packaging. There are also good reasons to apply the measure to all tobacco products, including that exempting specific product categories could create misperceptions regarding the relative risk to health posed by different products.

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Global implementation

Singapore's Consultation Paper mentions that plain packaging has been fully implemented in Australia, France and the United Kingdom, and that Hungary, Ireland, New Zealand, Norway and Slovenia are at varying stages of implementation, while Thailand has passed enabling legislation. In addition to this list, Burkina Faso, Georgia and Romania have passed enabling legislation.

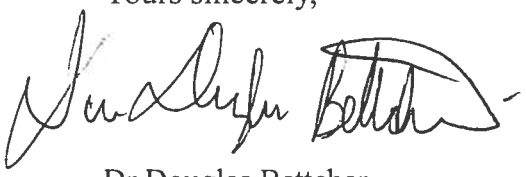
The applicability of international evidence to Singapore

Singapore's Consultation Paper also addresses the applicability of the international evidence to Singapore. In our March 2016 submission, WHO did not comment specifically on this issue. Nonetheless, on page 7 of that submission WHO noted that "when viewed together the body of evidence permits generally applicable conclusions to be drawn regarding plain packaging". These include the conclusions that plain packaging reduces the attractiveness of tobacco products, restricts use of the pack as a form of advertising and promotion, limits misleading packaging and increases the effectiveness of health warnings.

Given that Singapore's public consultation document addresses the applicability of international evidence to Singapore, it is important to recognize that these general conclusions about plain packaging are applicable to Singapore as well as other countries. This conclusion is given further support by the fact that the results of local studies conducted in Singapore are broadly consistent with the larger body of evidence on plain packaging, as well as with local studies conducted in Australia and Canada.

WHO takes the view that the SP Proposal has the potential to achieve the objectives set out and thereby reduce the prevalence of tobacco use. WHO congratulates Singapore on the progress made to date and stands ready to provide further assistance upon request.

Yours sincerely,



Dr Douglas Bettcher
Director
Prevention of Noncommunicable Diseases

Submission of the World Health Organization
Singapore - Public Consultation on Potential Tobacco Control Policies
18 March 2016

Executive Summary

The World Health Organization (WHO) Secretariat welcomes Singapore's Public Consultation on Potential Tobacco Control Policies, including plain (standardized) packaging of tobacco products.[1] (For purposes of this submission, plain packaging refers to "measures to restrict or prohibit the use of logos, colours, brand images or promotional information on packaging other than brand names and product names displayed in a standard colour and font style").[2]

Tobacco consumption has negative health, social and economic implications. The importance of taking a comprehensive approach to tobacco control is reflected in international instruments including the legally binding WHO Framework Convention on Tobacco Control (WHO FCTC), the Political Declaration of the High Level Meeting of the General Assembly on the Prevention and Control of Non-Communicable Diseases, the WHO Global Action Plan on Prevention and Control of NCDs (2013 – 2020) and the Sustainable Development Goals.

Article 11 of the WHO FCTC obliges Parties to implement *effective measures* to ensure that tobacco packaging and labelling does not promote tobacco products by means that are false, misleading or deceptive (Article 11.1(a)) and to ensure that tobacco packaging carries health warnings describing the harmful effects of tobacco use (Article 11.1(b)). Guidelines for Implementation of Article 11 recommend that Parties consider adoption of plain packaging.

Article 13 of the WHO FCTC obliges Parties to undertake a comprehensive ban (or restrictions) on tobacco advertising, promotion and sponsorship. Guidelines for Implementation of Article 13 recognize that packaging and product design are important elements of advertising and promotion and recommend that Parties consider adopting plain packaging.

There is a strong and growing body of evidence that justifies implementation of plain packaging. Evidence from experimental studies, focus groups and surveys support the conclusions that plain packaging reduces the attractiveness of tobacco products, restricts use of the pack as a form of advertising and promotion, limits misleading packaging and increases the effectiveness of health warnings. Early evidence from Australia, where plain packaging has been implemented, is consistent with these conclusions. That evidence also suggests that plain packaging, along with new health warnings of a larger size, has caused a reduction in the prevalence of smoking in Australia.

Leading countries in tobacco control and public health are implementing these measures. In addition to Australia, Ireland, France and the United Kingdom have each passed plain packaging laws to be implemented in May 2016. Other countries such as Canada, Chile,

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[1] www.hpb.gov.sg/tobacco-public-consult-2015

[2] Guidelines for Implementation of Article 11 (Packaging and labelling of tobacco products) of the WHO Framework Convention on Tobacco Control, paragraph 46.

Hungary, Norway, South Africa and Turkey are at advanced stages of considering plain packaging.

Impacts of Tobacco Consumption

It is well established that tobacco consumption poses significant risks to human life and health and that nicotine, a core component of tobacco products, is addictive. Among other conditions, tobacco use causes cardio-vascular diseases such as stroke and coronary heart disease, respiratory diseases such as emphysema and chronic bronchitis, and cancers such as lung cancer.[3] Globally, approximately 5.1 million adults aged 30 years and over die from direct tobacco use each year. In addition, some 603,000 people die from exposure to second-hand smoke every year.[4]

Tobacco consumption is also associated with substantial economic and social costs. As a preventable cause of disease, tobacco consumption places unnecessary burdens on already under-resourced health systems. Tobacco consumption has negative implications for sustainable economic development as it results in the diversion of household income from other expenditures such as food, health-care and education.[5] Tobacco consumption also has substantial environmental consequences, resulting in deforestation and the decline of soil fertility where tobacco is farmed[6], and the discard of tobacco filters and other refuse.[7]

Tobacco use is more prevalent among lower-income households[8] who bear the disproportionate burden of tobacco-caused diseases and deaths. Lost income due to early death, high proportions of disposable income spent to treat tobacco-attributable diseases and money spent on tobacco use rather than other essential goods, such as food, all thwart efforts to alleviate poverty.[9]

International Efforts to Address Tobacco

The importance of tobacco control and the need to accelerate implementation of tobacco control policies is reflected in international efforts to address the risks associated with tobacco consumption.

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[3] U.S. Department of Health and Human Services. The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014 available at http://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf .

[4] WHO Global Report: Mortality Attributable to Tobacco, World Health Organization, 2012, available at http://whqlibdoc.who.int/publications/2012/9789241564434_eng.pdf?ua=1.

[5] See generally Prabhat Jha and Frank Chaloupka (eds) Tobacco Control in Developing Countries, Oxford University Press, (2000); Katherine Esson and Stephen Leeder, The Millennium Development Goals and Tobacco Control: An Opportunity for Global Partnership, World Health Organization, 2004.

[6] Geist HJ. Global Assessment of Deforestation related to Tobacco Farming, 8 Tobacco Control, 1999, 18–28.

[7] See for example, Tobacco Control, Supplement, The Environmental Burden of Cigarette Butts, May 2011, Volume 20, Suppl 1.

[8] WHO, 2014. Systematic review of the link between tobacco and poverty. Available at: http://apps.who.int/iris/bitstream/10665/136001/1/9789241507820_eng.pdf?ua=1&ua=1

[9] Esson KM and Leeder SR. the Millennium Development goals and Tobacco Control: an opportunity for global partnership. WHO, 2004. Available at: http://whqlibdoc.who.int/publications/2004/9241562870_eng.pdf?ua=1

Between 1970 and 2003 the World Health Assembly (WHA) adopted 18 resolutions on tobacco. These resolutions recognize the risks associated with tobacco consumption and make recommendations with respect to the means by which WHO Member States may minimize those risks.

In 2003, the WHA adopted the WHO Framework Convention on Tobacco Control (WHO FCTC), an evidence-based treaty that reaffirms the right of all people to the highest standard of health.

In 2011, the Political Declaration of the High Level Meeting of the General Assembly on the Prevention and Control of Non-Communicable Diseases called upon Parties to accelerate implementation of the WHO FCTC.[10]

This call was repeated by the WHA in the WHO Global Action Plan on Prevention and Control of NCDs (2013 – 2020),[11] which includes a tobacco target aiming for a 30% relative reduction in prevalence of current tobacco use in persons aged 15 years and over.[12] Subsequently, in 2015, the General Assembly of the United Nations adopted the 2030 Agenda for Sustainable Development (Sustainable Development Goals), which includes the goal to "[s]trengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate."[13]

The WHO FCTC

The WHO FCTC came into force on 28 February 2005. The Convention has 180 Parties, making it one of the most rapidly and widely embraced treaties in the UN system. Article 3 establishes the objective of the Convention in the following terms:

> *"The objective of this Convention and its protocols is to protect present and future generations from the devastating health, social, environmental and economic consequences of tobacco consumption and exposure to tobacco smoke by providing a framework for tobacco control measures to be implemented by the Parties at the national, regional and international levels in order to reduce continually and substantially the prevalence of tobacco use and exposure to tobacco smoke."*

To achieve this objective the WHO FCTC obliges Parties, including Singapore, to implement a number of tobacco control measures aimed at reducing demand for tobacco products. Provisions aimed at reducing demand include Article 6 (Price and tax measures to reduce the demand for tobacco), Article 8 (Protection from exposure to tobacco smoke), Article 9 (Regulation of the contents of tobacco products), Article 10 (Regulation of tobacco product disclosures), Article 11 (Packaging and labelling of tobacco products), Article 12 (Education,

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[10] Political Declaration of the High Level Meeting of the General Assembly on the Prevention and Control of Non-Communicable Diseases, (document A/66/L.1), para. 43(c).
[11] WHO Global Action Plan for the Prevention and Control of NCDs 2013-2020 (resolution WHA66.10), para. 36(a).
[12] WHO Global Action Plan for the Prevention and Control of NCDs 2013-2020 (resolution WHA66.10).
[13] Transforming our world: the 2030 Agenda for Sustainable Development, A/RES/70/1, Goal 3.a

communication, training and public awareness) Article 13 (Tobacco advertising, promotion and sponsorship) and Article 14 (Demand reduction measures concerning tobacco dependence and cessation).

Although these interventions are effective alone, they are cumulative interventions that work together by targeting different drivers of tobacco consumption and different population groups as part of a complementary regulatory scheme. This is recognized in Article 4.4 of the Convention, which states:

> *"Comprehensive multisectoral measures and responses to reduce consumption of all tobacco products at the national, regional and international levels are essential so as to prevent, in accordance with public health principles, the incidence of diseases, premature disability and mortality due to tobacco consumption and exposure to tobacco smoke."*

Article 5.1 of the Convention also obliges Parties to implement comprehensive multisectoral national tobacco control strategies, plans and programmes.

Packaging and Labelling under Article 11 of the WHO FCTC

Article 11 obliges Parties to implement *effective measures* to ensure that tobacco packaging and labelling does not promote tobacco products by means that are false, misleading or deceptive (Article 11.1(a)) and to ensure that tobacco packaging carries health warnings describing the harmful effects of tobacco use (Article 11.1(b)).

Guidelines for Implementation of Article 11 have been adopted by the Conference of the Parties to the Convention. The Guidelines *"are intended to assist Parties in meeting their obligations under Article 11 of the Convention, and to propose measures that Parties can use to increase the effectiveness of their packaging and labelling measures."*[14] The Guidelines were drafted by working groups comprised of representatives of the Parties to the Convention. The working groups relied on available scientific evidence and the experience of the Parties themselves. Draft versions of the guidelines were open for consultation with all Parties before their submission to the Conference of the Parties, which subsequently adopted the guidelines by consensus.

With respect to plain packaging, paragraph 46 of the Guidelines states:

> *"Parties should consider adopting measures to restrict or prohibit the use of logos, colours, brand images or promotional information on packaging other than brand names and product names displayed in a standard colour and font style (plain packaging). This may increase the noticeability and effectiveness of health warnings and messages, prevent the package from detracting attention from them, and address industry package design techniques that may suggest that some products are less harmful than others."*

[14] Guidelines for Implementation of Article 11, para. 1.

In summary, the Guidelines for Implementation of Article 11 recommend that Parties consider adoption of plain packaging in addition to other packaging and labelling measures, including health warnings that cover as much of the principal display areas as possible and other measures prohibiting misleading packaging.

Tobacco Advertising, Promotion and Sponsorship under Article 13 of the WHO FCTC

Article 13 obliges Parties to undertake a comprehensive ban (or restrictions)[15] on tobacco advertising, promotion and sponsorship. The phrase "tobacco advertising and promotion" is defined in Article 1(c) as "any form of commercial communication, recommendation or action with the aim, effect or likely effect of promoting a tobacco product or tobacco use either directly or indirectly." As is the case with Article 11, the Guidelines for Implementation of Article 13[16] recommend that Parties consider adopting plain packaging.

The Guidelines address packaging and product features relevant to tobacco advertising, promotion and sponsorship. Paragraphs 15 and 16 state:

> *"15. Packaging is an important element of advertising and promotion. Tobacco pack or product features are used in various ways to attract consumers, to promote products and to cultivate and promote brand identity, for example by using logos, colours, fonts, pictures, shapes and materials on or in packs or on individual cigarettes or other tobacco products."*
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> *"16. The effect of advertising or promotion on packaging can be eliminated by requiring plain packaging: black and white or two other contrasting colours, as prescribed by national authorities; nothing other than a brand name, a product name and/or manufacturer's name, contact details and the quantity of product in the packaging, without any logos or other features apart from health warnings, tax stamps and other government-mandated information or markings; prescribed font style and size; and standardized shape, size and materials. There should be no advertising or promotion inside or attached to the package or on individual cigarettes or other tobacco products."*

The following recommendation is made in paragraph 17:

> *"Packaging and product design are important elements of advertising and promotion. Parties should consider adopting plain packaging requirements to eliminate the effects of advertising or promotion on packaging. Packaging, individual cigarettes or other tobacco products should carry no advertising or promotion, including design features that make products attractive."*

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[15] In accordance with Article 13.3.

[16] Guidelines for Implementation of Article 13 of the WHO Framework Convention on Tobacco Control, (decision FCTC/COP3(12)) available at http://www.who.int/fctc/treaty_instruments/adopted/article_13/en/.

In summary, the Guidelines for Implementation of Article 13 recognize that tobacco packaging is used as a means of tobacco advertising and promotion and recommend implementation of plain packaging for purposes of restricting use of packaging in that way.

The Evidence Base Justifying Plain Packaging

A strong evidence base justifies implementation of plain packaging. A body of peer-reviewed evidence in the form of experimental studies, focus groups and surveys has tested different forms of plain packaging in different places. Although individual studies each have their limitations, when viewed together the body of evidence permits generally applicable conclusions to be drawn regarding plain packaging. These conclusions include that plain packaging reduces the attractiveness of tobacco products, restricts use of the pack as a form of advertising and promotion, limits misleading packaging and increases the effectiveness of health warnings.

Although it is too early to measure the full impact of plain packaging as implemented in Australia, the evidence to date is consistent with this broader body of evidence (discussed below) and with the conclusion that plain packaging has contributed to reduction of the prevalence of smoking in Australia.

The attractiveness of tobacco products and advertising function of branding

Tobacco packaging is a prominent form of tobacco advertising and promotion. As internal tobacco industry documents recognize, packaging plays an increasingly important role in promoting tobacco products as other restrictions on tobacco advertising and promotion are tightened.[17]

Tobacco packs promote tobacco consumption not only at the point of sale, but also after the point of sale. Consumers display tobacco packaging when they use tobacco products, when they offer tobacco products to others and in other ways, such as by placing branded packaging on display in a social setting. In this way, tobacco products are "badge products", meaning that they have a high degree of social visibility and that consumers identify with the brand image cultivated on product packaging. As counsel for Japan Tobacco International stated in domestic court proceedings concerning plain packaging in Australia, tobacco packaging functions like a billboard.[18] The advertising function served by tobacco packaging has also been targeted specifically at youth[19] in a context where many consumers

[17] Wakefield M, Morley C, Horan JK, Cummings KM. The cigarette pack as image: new evidence from tobacco industry documents. Tobacco Control, 2002; 11(Supplement 1): Discoveries and disclosures in the corporate documents, March 2002, pp. i73-i80.

[18] High Court of Australia Transcripts, Japan Tobacco International SA v Commonwealth of Australia; British American Tobacco Australasia Limited and Ors v The Commonwealth of Australia [2012] HCATrans 91 (17 April 2012) available at http://www.austlii.edu.au/au/other/HCATrans/2012/91.html.

[19] Wakefield M, Morley C, Horan JK, Cummings KM. The cigarette pack as image: new evidence from tobacco industry documents. Tobacco Control, 2002; 11(Supplement 1): Discoveries and disclosures in the corporate documents, March 2002, pp. i73-i80.

of tobacco products become addicted before reaching adulthood.[20] It is estimated that approximately 10% of students between the ages of 13 and 15 years smoke cigarettes worldwide. Additionally, among these same students, almost 20% of those who had never smoked cigarettes indicated they were susceptible to initiate smoking during the next year.[21]

A substantial number of peer-reviewed studies that examine plain packaging support the conclusion that the measure reduces the attractiveness and appeal of tobacco products. This body of evidence includes results from recent experimental studies from Australia,[22] Brazil,[23] Canada,[24] New Zealand[25] and the United States of America (USA)[26], survey evidence from Australia,[27] France,[28] the UK,[29] the USA,[30] and focus group studies from New Zealand[31] and the United Kingdom.[32]

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[20] See generally Tobacco use among youth: a cross-country comparison, Tobacco Control, 2002; 11:252-270, doi:10.1136/tc.11.3.252 (http://tobaccocontrol.bmj.com/content/11/3/252.full).

[21] Warren CW, Jones NR, Peruga A, Chauvin J, Baptiste JP, Da Costa e Silva V et al. Global Youth Tobacco Surveillance, 2000—2007. 57(SS01) Morbidity and Mortality Weekly Report, January 25, 2008, 1-21.

[22] Wakefield MA, Germain D, Durkin SJ. How does increasingly plainer cigarette packaging influence adult smokers' perceptions about brand image? An experimental study, Tobacco Control, 2008; 17:416–421; Germain D, Wakefield M, Durkin S. Adolescents' perceptions of cigarette brand image: does plain packaging make a difference? Journal of Adolescent Health, 2010; 46:385–392; Wakefield M, Germain D, Durkin S, Hammond D, Goldberg M, Borland R. Do larger pictorial health warnings diminish the need for plain packaging of cigarettes? Addiction, 2012; 107:1159–1167. For a study not peer-reviewed see Donovan R., "Smokers' and non-smokers' reactions to standard packaging of cigarettes" University of Western Australia, 1993.

[23] White CM, Hammond D, Thrasher JF, Fong GT. The potential impact of plain packaging of cigarette products among Brazilian young women: an experimental study. BMC Public Health, 2012; 12:737–747.

[24] Doxey J, Hammond D. Deadly in pink: the impact of cigarette packaging among young women. Tobacco Control, 2011; 20:353e-360.

[25] Hoek J, Wong J, Gendall P, Louviere J, Cong K. Effects of dissuasive packaging on young adult smokers. Tobacco Control, 2011; 20:183e-188.

[26] Thrasher JF, Rousuc MC, Hammond MC, Navarro A, Corrigan JR. Estimating the impact of pictorial health warnings and "plain" cigarette packaging: evidence from experimental auctions among adult smokers in the United States. Health Policy, 2011; 102:41–48.

[27] Borland R, Savvas S, Sharkie F, Moore K. The impact of structural packaging design on young adult smokers' perceptions of tobacco products. Tobacco Control, 2013; 22:97–102; Wakefield MA, Hayes L, Durkin S, Borland R. Introduction effects of the Australian plain packaging policy on adult smokers: a cross-sectional study. BMJ Open, 2013; 3: e003175.

[28] Gallopel-Morvan K, Moodie C, Hammond D, Eker F, Beguinot E, Martinet Y. Consumer perceptions of cigarette pack design in France: a comparison of regular, limited edition and plain packaging. Tobacco Control, 2012; 21:502-506.

[29] Hammond D, Dockrell M, Arnott D, Lee A, McNeill A. Cigarette pack design and perceptions of risk among uk adults and youth. European Journal of Public Health, 2009; 19(6):631–637; Ford A, MacKintosh AM, Moodie C, Richardson S, Hastings G. Cigarette pack design and adolescent smoking susceptibility: a cross-sectional survey. BMJ Open, 2013, 3:e003282. doi:10.1136/bmjopen-2013- 003282.

[30] Bansal-Travers M, Hammond D, Smith P, Cummings KM. The impact of cigarette pack design, descriptors, and warning labels on risk perception in the US. American Journal of Preventive Medicine, 2011; 40(6):674–682; Hammond D, Doxey J, S Daniel S, Bansal-Travers M. Impact of female-oriented cigarette packaging in the United States. Nicotine & Tobacco Research, 2011; 13(7):579–588.

[31] Hoek J, Gendall P, Gifford H, Pirikahu G, McCool, Pene G et al. Tobacco branding, plain packaging, pictorial warnings, and symbolic consumption. Qualitative Health Research, 2012; 22(5):630-639

[32] Ford A, Moodie C, MacKintosh AM, Hastings G. Adolescent perceptions of cigarette appearance. European Journal of Public Health, 2014, 24(3):464–468; Moodie C, Ford A. Young adult smokers' perceptions of cigarette pack innovation, pack colour and plain packaging. Australasian Marketing Journal, 2011; 19:174–180.

Some of these studies also examine smoking attitudes and behaviour, such as the question whether plain packaging influences the intention of smokers to quit, and suggest that this is indeed the case.[33] Although intention does not necessarily indicate future behavior, it is nonetheless a precursor to behavioural change.
Evidence from Australia's implementation of plain packaging is consistent with the conclusion that plain packaging reduces the attractiveness and appeal of tobacco products. For example, studies have demonstrated a reduction in active smoking, and a sustained reduction in the display of tobacco packs, in outdoor settings. [34] This not only suggests that smokers treat tobacco packaging as less attractive, but also that plain packaging has reduced public exposure to tobacco packaging as a form of marketing.

Evidence from Australia's implementation of plain packaging also supports the conclusion that plain packaging encourages quitting. This evidence includes studies showing increased urgency among smokers to quit,[35] a significant and sustained increase in calls to the Quitline (a service that assists consumers in quitting tobacco use),[36] and increased rates of quitting cognitions and quit attempts among adult smokers.[37]

Misleading tobacco packaging

As is evident in Article 11 of the WHO FCTC (discussed above), tobacco branding, including that on packaging, may mislead consumers with respect to the health consequences of consuming different tobacco products. "Light", "mild" and similar brand variants are misleading to consumers because they suggest that the products with which they are

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[33] Doxey J, Hammond D., Deadly in pink: the impact of cigarette packaging among young women. Tobacco Control, 2011; 20:353e-360; Hoek J, Wong C, Gendall P, Louviere J, Cong K. Effects of dissuasive packaging on young adult smokers. Tobacco Control, 2011; 20:183e-188; Hammond D, Doxey J, Daniel S, Bansal-Travers M. Impact of female-oriented cigarette packaging in the United States. Nicotine & Tobacco Research, 2011, 13(7):579–588; Gallopel-Morvan K, Moodie C, Hammond D, Eker F, Beguinot E, Martinet Y. Consumer perceptions of cigarette pack design in France: a comparison of regular, limited edition and plain packaging. Tobacco Control, 2012; 21:502-506; Moodie C, Ford C. Young adult smokers' perceptions of cigarette pack innovation, pack colour and plain packaging. Australasian Marketing Journal, 2011; 19:174–180; Hoek J, Gendall P, Gifford H, Pirikahu G, McCool J, Pene G et al. Tobacco branding, plain packaging, pictorial warnings, and symbolic consumption. Qualitative Health Research, 2012; 22(5):630-639; Ford A, Moodie C, MacKintosh AM, Hastings G. Adolescent perceptions of cigarette appearance. European Journal of Public Health, 2014; 24(3):464–468; Wakefield M, Germain D, Durkin S, Hammond D, Goldberg M, Borland R. Do larger pictorial health warnings diminish the need for plain packaging of cigarettes? Addiction, 2012; 107:1159–1167; Wakefield MA, Hayes L, Durkin S, Borland R. Introduction effects of the Australian plain packaging policy on adult smokers: a cross-sectional study. BMJ Open, 2013; 3: e003175.

[34] Zacher M, Bayly M, Brennan E, Dono J, Miller C, Durkin S et al. Personal tobacco pack display before and after the introduction of plain packaging with larger pictorial health warnings in Australia: an observational study of outdoor café strips. Addiction, 2014; 109:653–662; Zacher M, Bayly M, Brennan E, Dono J, C Miller C, Durkin S et al. Personal pack display and active smoking at outdoor café strips: assessing the impact of plain packaging 1 year post imlpementation. Tobacco Control, 2015; 24:ii94 - ii97.

[35] Wakefield MA, Hayes L, Durkin S, Borland R. Introduction effects of the Australian plain packaging policy on adult smokers: a cross-sectional study. 3 BMJ Open, 2013; 3: e003175.

[36] Young JM, Stacey I, Dobbins TA, Dunlop S, Dessaix AL, Currow DC. Association between tobacco plain packaging and Quitline calls: a population-based, interrupted time-series analysis. MJA, 2014; 200:29–32.

[37] Durkin S, Brennan E, Coomber K, Zacher M, Scollo M, Wakefield M. Short-term changes in quitting-related cognitions and behaviours after the implementation of plain packaging with larger health warnings: findings from a national cohort study with Australian adult smokers. Tobacco Control, 2015; 24:ii26 – ii32.

associated are less harmful to health than regular brand variants, when this is not the case.[38] Rather, consumers compensate for the lower tar and nicotine yields in these products, including by smoking more of a cigarette and taking deeper puffs. Machine tests for tar and nicotine yields are also affected by small holes in cigarette filters that are partially blocked by a smoker's fingers during inhalation.[39]

Notwithstanding bans on misleading descriptors, consumers maintain erroneous views about the risks associated with different tobacco products.[40] This is partly because colours and other elements of package design have been used to preserve misleading brand extensions in the absence of descriptors. Evidence of this comes from numerous sources, including the USA where an Altria brochure, concerning Philip Morris USA products, was distributed to retailers.[41] That brochure showed the new pack identifiers associated with misleading brand variants and enabled retailers to assist consumers in identifying those variants after misleading descriptors were banned from packaging. For example, Marlboro Lights became Marlboro Gold and Marlboro Ultra Lights became Marlboro Silver. The brochure also indicated that "some cigarette and smokeless packaging is changing, but the product stays the same". In this context, a nationally representative survey of smokers in the USA conducted one year after the ban on misleading descriptors came into effect found that 92% of smokers reported that they could easily identify their usual brands and 68% correctly named the package colour associated with their usual brand by the banned descriptor name.[42]

In this and other ways, there is a strong association between packaging design and how consumers perceive risk.[43] For example, different variants of one tobacco brand can in themselves be misleading to consumers, particularly when presented in the course of trade alongside one another and regular or full flavoured brands. One reason for this is that

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[38] Monograph 13: Risks associated with smoking cigarettes with low tar machine-measured yields of tar and nicotine. Bethesda, Maryland, USA: US Department of Health and Human Services, Public Health Service, National Institutes of Health, National Cancer Institute, 2001, chapter 6; SACTOB Conclusions on Health Claims Derived from ISO/FTC Method to Measure Cigarette Yield, World Health Organization, 2003.

[39] Ibid.

[40] See for example, Global Adult Tobacco Survey (GATS): Uruguay Country Report 2011, available at http://nccd.cdc.gov/gtssdata/Ancillary/DataReports.aspx?CAID=3, p. 155 table 9.3.; Global Adult Tobacco Survey (GATS): Russian Federation 2009 Country Report, available at http://www.who.int/tobacco/surveillance/en_tfi_gats_russian_countryreport.pdf?ua=1 p. 68; Borland R et al, What happened to smokers' beliefs about light cigarettes when "light/mild" brand descriptors were banned in the UK? Findings from the International Tobacco Control (ITC) Four Country Survey. Tobacco Control, 2008, 17:256 – 262

[41] Philip Morris, Retailer Brochure. Introducing new packaging on many Philip Morris USA (PM USA) brands. 2010. Bates Number 5003355067-5072 available in colour at http://www.nacsonline.com/News/Daily/Documents/AltriaBrochure.pdf and on the Philip Morris website at http://www.pmdocs.com/core/downloadSearchBlob?IDX=1&FROM=SEARCH&CVSID=34e3d36b9412b753adc386cd5630b887 .

[42] Connolly GN, Alpert HR. Has the tobacco industry evaded the FDA's ban on 'light' cigarette descriptors? Tobacco Control, 2014; 23:140 – 145.

[43] Hammond D, Parkinson C. The impact of cigarette package design on perceptions of risk. Journal of Public Health, 2009; 31(3):345-53; Hammond D, Dockrell M, Arnott D, Lee A, McNeil A. Cigarette pack design and perceptions of risk among UK adults and youth. European Journal of Public Health, 2009; 19(6):631 – 637; Bansal-Travers M, Hammond D, Smith P, Cummings KM. the impact of cigarette pack design, descriptors, and warning labels on risk perception in the US. American Journal of Preventive Medicine, 2011; 40(6):674 – 682.

people try to find attributes among brand variants.[44] Another reason is that packaging, and particularly colour, affects consumers' perceptions of risk. Early evidence of this can be found in internal tobacco industry documents released to the public through litigation. For example, a 1990 tobacco industry document recognized that so-called "lower delivery products" were featured in lighter packs because they have a clean healthy connotation.[45]

This observation is consistent with other internal tobacco industry documents, including studies that tested consumer reactions to ultra-light products packaged in different colour packs.[46] These reactions included consumers ranking the perceived tar level of products in different colour packs[47] and commenting on factors such as the harshness and strength of the flavour of different colour packs with otherwise identical products inside them.[48]

Against this backdrop, recent peer-reviewed studies suggest that plain packaging will minimize the tendency of tobacco packaging and brand variants to mislead consumers concerning the relative health consequences of different products. This evidence includes the results of experimental studies from Australia,[49] Brazil[50] and Canada,[51] survey evidence from Australia,[52] France,[53] the UK,[54] and the USA,[55] and a focus group study from the UK.[56]

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[44] Borland R, Savvas, S. The effects of variant descriptors on the potential effectiveness of plain packaging. Tobacco Control, 2014; 23:58–63.

[45] Philip Morris. Marketing new products in a restrictive environment; 1990 June Report Bates No 2044762173-2364. The document states "Lower delivery products tend to be featured in blue packs. Indeed, as one moves down the delivery sector, then the closer to white a pack tends to become. This is because white is generally held to convey a clean healthy association."

[46] See generally Wakefield M, Morley C, Horan JK, Cummings KM. The cigarette pack as image: new evidence from tobacco industry documents. Tobacco Control, 2002; 11 (Suppl 1) i73-i80.

[47] Philip Morris, Marketing Research Department Report Marlboro Ultra Light Pack Study: Top-Line Results, February 9, 1981, Bates no. 2048718182-2048718194 available at http://www.legacy.library.ucsf.edu/tid/fpc36e00;jsessionid=03C8192F212A226CB9A1B89760F0D162.tobacco01 .

[48] Philip Morris, Identified HTI Test Of Marlboro Ultra Lights In A Blue Pack Versus Marlboro Ultra Lights In A Red Pack (Project No. 1256/1257), September 3, 1996, Bates no. 2047387079-2047387089, available at http://www.legacy.library.ucsf.edu/tid/geb36e00/ .

[49] Wakefield M, Germain M, Durkin S. How does increasingly plainer cigarette packaging influence adult smokers' perceptions about brand image? An experimental study. Tobacco Control, 2008; 17:416–421; Germain D, Wakefield M, Durkin S. Adolescents' perceptions of cigarette brand image: does plain packaging make a difference? Journal of Adolescent Health, 2010; 46:385–392; Wakefield M, Germain G, Durkin S, Hammond D, Goldberg M, Borland R. Do larger pictorial health warnings diminish the need for plain packaging of cigarettes? Addiction, 2012; 107:1159–1167.

[50] White CM, Hammond D, Thrasher JF, Fong GT. The potential impact of plain packaging of cigarette products among Brazilian young women: an experimental study. BMC Public Health 2012; 12:737–747.

[51] Doxey J, Hammond D. Deadly in pink: the impact of cigarette packaging among young women. Tobacco Control, 2011, 20:353e-360.

[52] Wakefield MA, Hayes L, Durkin S, Borland R. Introduction effects of the Australian plain packaging policy on adult smokers: a cross-sectional study. BMJ Open, 2013; 3: e003175.

[53] Gallopel-Morvan K, Moodie C, Hammond C, Eker F, Beguinot E, Martinet Y. Consumer perceptions of cigarette pack design in France: a comparison of regular, limited edition and plain packaging. Tobacco Control, 2012; 21:502-506.

[54] Hammond D, Dockrell M, Arnott D, Lee A, McNeill A. Cigarette pack design and perceptions of risk among UK adults and youth. European Journal of Public Health, 2009; 19(6):631–637.

[55] Bansal-Travers M, Hammond D, Smith P, Cummings KM. The impact of cigarette pack design, descriptors, and warning labels on risk perception in the US. American Journal of Preventive Medicine, 2011; 40(6):674–

It is also reasonable to expect that the impact of plain packaging on misperceptions of harm will increase over time as recall of misleading packaging fades. Despite this, the early evidence from Australia suggests that plain packaging has already reduced consumer misperceptions of harm. A national cross-sectional tracking survey found a statistically significant increase in the proportion of adult smokers who believed that brands do not differ in harmfulness (69.8%) during the first year of implementation as compared with the period before implementation (65.7%).[57]

The effectiveness of health warnings

Health warnings inform consumers and non-consumers about the risks associated with use of tobacco products and discourage tobacco consumption. Branding on tobacco packaging distracts from health warnings, reducing the ability of warnings to inform consumers and discourage tobacco consumption.

A number of peer-reviewed studies suggest that plain packaging increases the salience of health warnings on tobacco packaging. This body of evidence includes experimental studies from Australia[58] and Canada,[59] as well as survey evidence from Australia.[60] These studies are consistent with a separate body of evidence, which suggests that the effects of health warnings increase with their size.[61] Importantly, the evidence suggests plain packaging also has effects above and beyond those of large health warnings.[62]

Australia updated (including introducing new warnings) and increased the size of graphic health warnings on tobacco products at the same time plain packaging was introduced. Although it is difficult to isolate the impact of each action, early evidence is consistent with the conclusion that the policy change is increasing the effectiveness of health warnings in Australia. That body of early evidence focuses on the effects of the change on adult smokers

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682; Hammond D, Doxey J, Daniel S, Bansal-Travers M. Impact of female-oriented cigarette packaging in the United States. Nicotine & Tobacco Research, 2011; 13(7):579–588.

[56] Ford A, Moodie C, MacKintosh AM, Hastings G. Adolescent perceptions of cigarette appearance. European Journal of Public Health, 2014, 24(3):464–468; Moodie C, Ford A. Young adult smokers' perceptions of cigarette pack innovation, pack colour and plain packaging. Australasian Marketing Journal, 2011; 19:174–180.

[57] Wakefield M, Coomber K, Zacher M, Durkin S, Brennan E, Scollo M. Australian adult smokers' responses to plain packaging with larger graphic health warnings 1 year after implementation: results from a national cross-sectional tracking survey. Tobacco Control 2015; 24:ii17–ii25, p. 21

[58] Germain D, Wakefield M, Durkin S. Adolescents' perceptions of cigarette brand image: does plain packaging make a difference? Journal of Adolescent Health, 2010; 46:385–392; Wakefield M, Germain D, Durkin S, Hammond D, Goldberg M, Borland R. Do larger pictorial health warnings diminish the need for plain packaging of cigarettes? Addiction, 2012; 107:1159–1167.

[59] Al-Hamdani M. The effect of cigarette plain packaging on individuals' health warning recall. Healthcare Policy, 2013; 8(3):68-77.

[60] Borland R, Savvas S, Sharkie F, Moore K. The impact of structural packaging design on young adult smokers' perceptions of tobacco products. Tobacco Control, 2013; 22:97–102.

[61] See for example Les Études de Marché créatec. Quantitative study of Canadian adult smokers effects of modified packaging through increasing the size of warnings on cigarette packages, Prepared for Health Canada, April 2008, p.4.

[62] Wakefield M, Germain D, Durkin S, Hammond D, Goldberg M, Borland M. Do larger pictorial health warnings diminish the need for plain packaging of cigarettes? Addiction, 2012; 107:1159–1167.

(as opposed to non-smokers) and includes studies that found smokers noticed the warnings more.[63] In addition, more smokers attributed intention to quit to the warnings, avoided specific warnings and covered packs, all of which may indicate effectiveness.[64]

The prevalence of tobacco use

Because plain packaging is intended to be implemented as part of a comprehensive multisectoral approach to tobacco control, and to strengthen existing tobacco control measures, it will ordinarily be difficult to isolate the impact of plain packaging on the prevalence of tobacco use. For example, in the Australian context, plain packaging was implemented alongside, and interacts with, a number of existing measures. New measures, such as tax increases, enlarged health warnings and increased cessation support, were also announced at the same time as plain packaging. As plain packaging interacts with existing measures and takes effect with new measures it may be methodologically difficult to attribute declining tobacco use to any one measure.

The impacts of plain packaging can also not be evaluated in a comprehensive manner in the short-term. The policy may have impacts on consumers and non-consumers of tobacco products that are observable in the short-term, such as those described above. These impacts may also have flow-on effects on the prevalence of tobacco use in the short-term. However, plain packaging may also have longer-term impacts as the promotional and misleading impact of tobacco packaging declines over time. In particular, it might be expected that the impact of plain packaging on the prevalence of tobacco use will increase as children reach the age of initiation without ever having observed fully-branded tobacco packaging.

Since the introduction of plain packaging, the Australian government has observed declining total expenditure on tobacco products and declining customs and excise clearances on tobacco products.[65] Statistics also show that a decline in smoking prevalence has continued in Australia. These figures include the following.

- The National Drug Strategy Household Survey for 2013 showed a reduction in the prevalence of daily smokers aged 14 years or over to 12.8% in 2013, compared with 15.1% in 2010.[66]
- The Australian Secondary Students' Alcohol and Drug survey found that in 2014 only 5.1% of 12–17 year olds are current smokers, compared with 6.7% in 2011.[67]

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[63] Wakefield M, Coomber K, Zacher M, Durkin S, Brennan E, Scollo M. Australian adult smokers' responses to plain packaging with larger graphic health warnings 1 year after implementation: results from a national cross-sectional tracking survey. Tobacco Control 2015; 24: ii17–ii25; Yong Hua-Hie, Borland R, Hammond D, Thrasher JF. Smokers' reactions to the new larger health warning labels on plain cigarette packs in Australia: findings from the ITC Australia Project, Tobacco Control available at http://tobaccocontrol.bmj.com/content/early/2015/02/19/tobaccocontrol-2014-051979.abstract?sid=1fdfc608-010d-4b5c-876e-ccf1e3f05b3a.

[64] Ibid, (Wakefield et al).

[65] On each of these issues see http://www.health.gov.au/internet/main/publishing.nsf/Content/tobacco-kff .

[66] Australian Institute of Health and Welfare 2014. National Drug Strategy Household Survey detailed report: 2013. Drug statistics series no. 28. Cat. no. PHE 183. Canberra: Australian Institute of Health and Welfare , figure 3.1.

- In the National Health Survey rates of daily smoking among adults (18 years and older) have continued to drop, to 14.5% in 2014-15, compared with 16.1% in 2011-12 and 22.4% in 2001.[68]

Although these studies were not designed specifically to measure the impact of plain packaging, the figures show a correlation between plain packaging, reduced total consumption and reduced prevalence of smoking. Importantly, these official government statistics are consistent with the broader body of evidence set out above.

Moreover, the Australian government released a formal post-implementation review of tobacco plain packaging in February 2016. The review concluded that the measure has begun to achieve its public health objectives.[69] With respect to the impact of the measure on prevalence, the review relies on an expert analysis, which found a statistically significant reduction in the prevalence of consumption attributable to the 2012 changes to tobacco packaging (including the updated and expanded health warnings discussed below). More specifically, the analysis estimated that "the 2012 packaging changes reduced average smoking prevalence among Australians aged 14 years and over by 0.55 percentage points".[70] The report of the analysis also states that the effect is likely understated and expected to grow over time.[71] In short, plain packaging has reduced smoking prevalence in Australia beyond the pre-existing downward trend.

In conclusion, peer-reviewed studies point in one direction and confirm the merits of plain packaging. These studies find further support in the real world experience of Australia. Nonetheless, tobacco companies have commissioned studies to dispute the impact of the measure; the credibility of these studies is questionable because they have been commissioned by tobacco companies, are not supported by independent studies published in respected peer-reviewed journals and are inconsistent with a far larger body of evidence. The Cancer Council Victoria (Australia) has undertaken more detailed critiques of these industry commissioned studies,[72] which are also addressed in Australia's post-implementation review.

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[67] Australian secondary school students' use of tobacco in 2014, Report prepared by White V, Williams T, Centre for Behavioural Research in Cancer, Cancer Council Victoria, Australia; prepared for Tobacco Control Taskforce Australian Government Department of Health October 2015 http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/Publishing.nsf/content/BCBF6B2C638E1202CA257ACD0020E35C/$File/Tobacco%20Report%202014.PDF

[68] National Health Survey: First Results, 2014-15 available at http://www.abs.gov.au/ausstats/abs@.nsf/mf/4364.0.55.001.

[69] Post-Implementation Review Tobacco Plain Packaging, 2016, Australian Government, Department of Health, 26 February 2016, https://ris.govspace.gov.au/files/2016/02/Tobacco-Plain-Packaging-PIR.pdf, paragraph 140.

[70] Ibid. paragraph 107.

[71] Post-Implementation Review Tobacco Plain Packaging, 2016, Australian Government, Department of Health, 26 February 2016, Appendix A, A, T. Chipty, Study of the Impact of Tobacco Plain Packaging Measure on Smoking Prevalence in Australia, (January 2016), paragraph 36.

[72] See https://www.cancervic.org.au/plainfacts/browse.asp?ContainerID=industryclaimsaboutlackofeffectiveness.

Expert reviews of the evidence

Expert reviews of the evidence base underlying plain packaging include a report prepared by the Australian Preventative Health Taskforce,[73] a review of the evidence prepared by Quit Victoria and Cancer Council Victoria in Australia, [74] and three systematic reviews of the evidence commissioned by Ireland and the UK.[75] These reviews examined the empirical evidence and produced conclusions that are consistent with the evidence summarized above.

International Practice

In December 2012 Australia became the first country to implement fully tobacco plain packaging. At the time of writing, France, Ireland and the UK have passed laws to implement plain packaging in May 2016, and Hungary and Norway are in the process of developing laws to implement plain packaging. Several other countries, including New Zealand, South Africa and Turkey, have either expressed an intent to implement the measure or are in the policy-development process.

Conclusion

WHO welcomes Singapore's public consultation on potential tobacco control policies, including plain packaging. There is a strong body of evidence justifying introduction of plain packaging as part of a comprehensive approach to tobacco control. That evidence supports the conclusions that plain packaging reduces the attractiveness of tobacco products, restricts use of the pack as a form of advertising and promotion, limits misleading packaging and increases the effectiveness of health warnings. Moreover, early evidence from Australia suggests that plain packaging, along with new larger health warnings, has reduced the prevalence of smoking.

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[73] Australia: the healthiest country by 2020. Technical Report No 2 Tobacco Control in Australia: Making Smoking History, Including addendum for October 2008 to June 2009, Commonwealth of Australia, (2009) available at http://www.preventativehealth.org.au/internet/preventativehealth/publishing.nsf/Content/96CAC56D5328E3D0CA2574DD0081E5C0/$File/tobacco-jul09.pdf.

[74] Plain packaging of tobacco products: a review of the evidence, August 2011, available at http://www.cancervic.org.au/plainfacts/plainfacts-evidence.

[75] Plain packaging of tobacco products: a review of the evidence, August 2011, available at http://www.cancervic.org.au/plainfacts/plainfacts-evidence. See also Moodie C, Stead M, Bauld L, McNeill A, Angus K, Hinds K et al. Plain tobacco packaging: a systematic review. Public Health Research Consortium, (2011), available at http://phrc.lshtm.ac.uk/papers/PHRC_006_Final_Report.pdf; Standardised Packaging of Tobacco, Report of the Independent Review undertaken by Sir Cyril Chantler, (April 2014), available at http://www.kcl.ac.uk/health/10035-TSO-2901853-Chantler-Review-ACCESSIBLE.PDF; Standardized Packaging of Tobacco Products: Evidence Review, prepared on behalf of the Irish Department of Health, March 2014, David Hammond PhD, available at http://health.gov.ie/wp-content/uploads/2013/12/2014-Ireland-Plain-Pack-Main-Report-Final-Report-July-26.pdf.

The consistency of the evidence testing different approaches to plain packaging in different places suggests that generalizable conclusions about the merits of the policy can be made. These conclusions are, therefore, as relevant to Singapore as they are to other countries.