2018

# Public Consultation Paper on Proposed Tobacco-Control Measures in Singapore

PREPARED BY THE MINISTRY OF HEALTH

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## PART 1: OVERVIEW

### 1.1. Introduction

Tobacco use is a significant public health problem in Singapore. As Singapore seeks to arrest the causes of ill health early, reducing tobacco use is a key battle in the fight to secure more years of good health for Singaporeans.

"Standardised packaging" (also known as "plain packaging" or "neutral packaging") generally refers to the: (a) strict regulation of promotional aspects of tobacco packaging (such as trademarks, logos, colour schemes and imagery); and (b) standardisation of packaging elements. The standardised packaging measure is often accompanied by the requirement to incorporate prominent mandatory health warnings on the packaging.

Australia was the first country to introduce standardised packaging (together with enlarged mandatory graphic health warnings) for tobacco products, on 1 December 2012. Since then, other countries such as France, the United Kingdom, and Ireland have introduced similar measures.

The Government is committed to reducing the serious harm that smoking causes to individual Singaporeans and to the nation's public health. Our long-standing public health objective is to promote and move towards a tobacco-free society. To this end, the Government has adopted a multi-pronged approach to tobacco control incorporating a range of measures designed to discourage smoking, help reduce smoking prevalence and improve population health. From 29 December 2015 to 29 March 2016, the Government held a public consultation seeking the public's views on the different tobacco control measures that were being studied at the time, namely, enlargement of graphic health warnings, restriction in the sale of flavoured tobacco products, increase in the minimum legal age for the purchase, possession and use of tobacco products in Singapore from 18 to 21 years old and standardised packaging of tobacco products.

Having considered the feedback received in response to the 2015/2016 public consultation, this document presents the Government's proposal for the introduction of standardised packaging together with enlarged graphic health warnings (hereinafter

collectively referred to as “the SP Proposal”) in Singapore for further and more detailed public consultation.

The key elements of this SP Proposal are: (a) regulating the promotional aspects of tobacco packaging; (b) standardising tobacco packaging elements; and (c) increasing the size of graphic health warnings on tobacco packaging from 50% to 75%.

### 1.2. Purpose

The purpose of this consultation document is to:

- Set out the Government’s rationale and proposal for the SP Proposal;
- Set out the Government’s evaluation of the feedback and views received on standardised packaging and enlargement of graphic health warnings, including those received during the 2015/2016 public consultation; and
- Gather the views of interested individuals, businesses and organisations.

This consultation process aims to provide interested individuals, organisations and businesses with the opportunity to comment on the SP Proposal (including the draft specifications) and have their views considered before the Government decides whether or not to proceed with introducing the SP Proposal in Singapore.

### 1.3 Outline

- Part 1 provides this overview.
- Part 2 summarises the rationale for introducing the SP Proposal, and explains how it forms part of Singapore’s multi-pronged approach to tobacco control.
- Part 3 lists the Government’s public health policy objectives for the SP Proposal and summarises the Government’s preliminary assessment of the merits of introducing the SP Proposal. It then describes (in summary) specifics of the SP Proposal for Singapore.
- Part 4 summarises the main body of international and local research evidence and studies considered by the Government in arriving at its preliminary assessment of the merits of introducing the SP Proposal.

- Part 5 sets out other major concerns with regard to standardised packaging of which the Government is aware and also sets out the Government's evaluation of these concerns.
- Part 6 provides the details of the consultation process and instructions on how to participate.
- Part 7 sets out the questions that the Government is seeking comments and feedback on in this consultation paper.
- Appendix 1 contains some examples of standardised packaging (with mandatory graphic health warnings) from around the world.
- Appendix 2 sets out details of the measure under consideration in the SP Proposal.
- Appendix 3 provides a list of the main sources and references referred to by the Government in preparing this document.

## PART 2: RATIONALE FOR THE SP PROPOSAL

### 2.1. Singapore's approach to tobacco control

Singapore's long-standing public health objective is to promote and move towards a tobacco-free society.

To this end, over the years, Singapore has adopted a comprehensive, multi-pronged approach to tobacco control with the aim of, among others:

- Preventing/reducing the opportunities for non-smokers, particularly youths, to pick up smoking;
- Encouraging smokers to quit; and
- Encouraging Singaporeans to adopt a tobacco-free lifestyle.

Some of the measures adopted as part of this multi-pronged approach include:

- Restrictions on tobacco advertising and promotion (e.g. ban on tobacco advertisements in print, TV and radio);
- Imposing taxes on tobacco products;
- Public education initiatives on the harms of tobacco use (e.g. school education programs, mandatory health warning labels on tobacco product packaging, mass media advertisements); and
- Efforts to encourage tobacco-free living (e.g. QuitLine, "I Quit" programme).

Historically, Singapore has placed a high priority on tobacco control, and has long been at the forefront of tobacco control[1]:

- In 1970, Singapore was among the first countries to introduce a ban on smoking in certain public places.

[1] Tan ASL, Arulanandam S, Chng CY, Vaithinathan R. Overview of legislation and tobacco control in Singapore. International Journal of Tuberculosis and Lung Disease. 2000; 4(11):1002-8.

- In 1971, Singapore was the first Asian country to introduce a ban on tobacco advertisements in print, TV and radio. This advertising ban was extended in 1989 to prohibit free sampling, point-of-sale display of tobacco advertisements, and use of tobacco logos on non-tobacco products. In 2016, tobacco advertisements published electronically (i.e. on the Internet) were also banned.
- In 1991, Singapore removed the duty-free tobacco allowance for all inbound travellers.
- In 1993, the import and sale of imitation tobacco products, such as toy cigarettes (and, when they came onto the market, e-cigarettes), were banned. A minimum legal age at which tobacco products can be purchased, set at 18 years old, was also introduced.
- In 1998, sales of tobacco products were restricted to licensed shops.
- In 2004, Singapore became the first Asian country to introduce mandatory graphic health warning labels on tobacco product packaging. This followed earlier requirements (implemented in 1980 and subsequently modified in 1989 and 1994) that cigarette packets carry text health warning labels. The 1994 amendments had also mandated increasing the size of the text warning label to cover 20% of both the larger surfaces of tobacco product packaging. Singapore was also one of the first countries, in 2004, to require tobacco product packaging to carry the QuitLine telephone number as part of its mandatory graphic health warning labels.
- In 2013, Singapore banned misleading descriptors such as “mild”, “low tar” and “ultra-light”.
- In 2017, Singapore implemented a point-of-sale display ban for tobacco products, and banned the purchase, use and possession of imitation tobacco products.
- From 2019, Singapore will be progressively raising the minimum legal age at which tobacco products can be purchased from 18 years to 21 years of age.

## 2.2 Health burden of tobacco use in Singapore

Tobacco use is a significant public health problem in Singapore. As a risk factor, it is the second-highest contributor to the burden of disease in Singapore. More than 2,000[2]

[2] Based on figures from the Singapore Burden of Disease Comparative Risk Assessment (CRA) 2010 study and Registry of Births and Deaths 2016 report, it is estimated that there were some 2,073 deaths in 2016 due to smoking-related diseases.

Singaporeans die prematurely from smoking-related diseases[3] each year. This works out to about 6 Singaporeans dying prematurely from smoking-related diseases each day. The social cost of smoking in Singapore has been conservatively estimated to be at least $600 million[4] a year in direct healthcare costs and lost productivity. As Singapore seeks to arrest the causes of ill health early, reducing tobacco use is a key battle in the fight to secure more years of good health for Singaporeans.

Singapore has been introducing measures to control tobacco sales and advertising, and organising public information programmes on smoking since the 1970s. As a result of the Government's efforts, smoking rates in Singapore fell from 23% in 1977 to 19% in 1984,[5] and further to 12.6% in 2004.[6] However, in recent years, the rate of decline in smoking rates has been harder to sustain. The smoking rates have been fluctuating between 12% and 14% in the last 10 years, with no clear pattern of continuous decline (see **Figure 1** below).

A particular concern is the fact that there remains a sizable proportion of men (more than 1 in 5) who smoke daily. Singapore's male smoking rate is higher than the rates in 13 OECD countries, including Australia, New Zealand, the United Kingdom and the United States.[7] More needs to be done to achieve sustained improvements in the decline in the smoking rates, so as to attain lower male smoking rates, and to bring the overall smoking rate to a level that is as low as possible.

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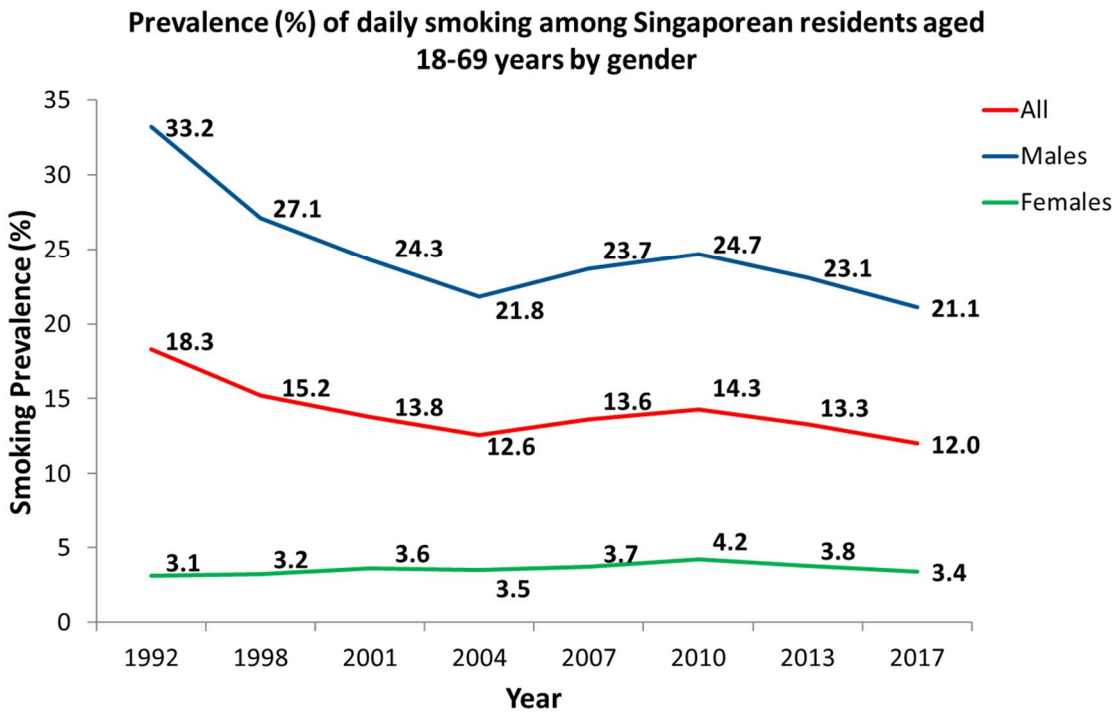
[3] The list of smoking related diseases includes: cancers of the mouth, oesophagus, lung, larynx, pancreas, bladder, kidney, stomach and uterus; ischaemic heart disease; stroke; chronic obstructive pulmonary disease; Parkinson's disease; lower respiratory tract infections; low birth weight, fire injuries; asthma; otitis media; and age-related macular degeneration.

[4] Based on Cher BP, Chen C, Yoong J. Prevalence-based, disease-specific estimate of the social cost of smoking in Singapore. BMJ Open. 2017; 8:e014377; using the 2014 conversion rate of US$1 = SG$1.25. Reported estimate for 2014 was US$479.8 million.

[5] Emmanuel SC, Chen AJ, Phe A. Cigarette smoking in Singapore. Singapore Medical Journal. 1988; 29:119-24.

[6] Ministry of Health, Singapore. National Health Survey 2010.

[7] This is based on a comparison between the rate of prevalence of daily smoking among Singaporean male residents aged 18-69 years (21.1%) derived from the National Population Health Survey 2017 Pilot Study (see footnote 8 below) and the OECD Health Statistics 2017 (available at: http://www.oecd.org/els/health-systems/health-data.htm; last accessed: 1 February 2018).




Source: National Health Survey (NHS) 1992, 1998, 2004 & 2010; National Health Surveillance Survey (NHSS) 2001, 2007, 2013; National Population Health Survey 2017 Pilot Study

Figure 1: Prevalence of daily smoking among Singapore residents aged 18-69 years

In Singapore, 21% of male residents and 3% of female residents smoke cigarettes daily.[8] Smoking is an addiction, and smokers often require multiple attempts before they can quit smoking successfully. The Health Promotion Board of Singapore's ("HPB") "I Quit" programme has achieved a quit rate of approximately 10%. This is comparable to similar smoking cessation programmes overseas. However, this relatively low success rate underscores the difficulty involved in quitting smoking. Many ex-smokers made multiple attempts before successfully quitting. It is therefore all the more important to introduce tobacco control measures that work to discourage non-smokers from starting smoking and that will also support current smokers in their journey to quit their smoking habits.

The need for such measures is especially acute when it comes to young Singaporeans. A large proportion of smokers pick up the habit of smoking at a relatively young age. Nineteen out of 20 younger smokers aged 18-39 years (95%) had their first puff before the age of 21 years, and more than 8 in 10 (83%) of younger smokers aged 18-39 years in Singapore became

[8] Ministry of Health, Singapore. National Population Health Survey 2017 Pilot Study.

regular smokers before the age of 21 years.[9] Even though the minimum legal age for smoking and the purchase of tobacco will be progressively raised from 18 to 21 years between 2019 and 2021, the exposure of under-aged youths to smoking and to tobacco advertising remains a concern. This is because 38% of Singapore's young smokers aged 18-39 years started before they were 18 years old, despite the minimum legal age for purchase, possession and use of tobacco products.[10]

### 2.3 Tobacco product packaging is a form of advertising

Given that most conventional forms of tobacco advertising and promotion have been banned in most countries, tobacco product packaging plays a vital role in advertising and promoting tobacco products. In particular, tobacco industry documents have revealed that tobacco product packaging is regarded as an integral component of the industry's marketing and promotion strategy and that design elements such as colours, attractive brand images, and innovative packaging features are used to influence consumer perceptions of health risks associated with tobacco use, establish brand imagery of specific brands, reduce the effectiveness of health warnings and promote positive social norms and attitudes towards smoking – especially amongst youth and young adults.[11] Given the vital role played by packaging in advertising and promoting tobacco products, the Government is of the view that maintaining the status quo on tobacco product packaging is likely to undermine the effectiveness of Singapore's existing controls on tobacco advertising. We note that youth under the minimum legal age will also be exposed to tobacco packaging (and its advertising and

[9] Ministry of Health, Singapore. National Health Surveillance Survey 2013. The figures from the National Population Health Survey 2017 Pilot Study, which had a significantly smaller sample size, indicate that 92% of younger smokers aged 18-39 years had their first puff before the age of 21 years, while 75% of younger smokers aged 18-39 years became regular smokers before the age of 21 years. Figures from the 2013 and 2017 Surveys amongst all smokers (aged 18-69 years) were generally lower – for example, 89% (2013) and 88% (2017) of all smokers aged 18-69 years had their first puff before the age of 21 years while 75% (2013) and 70% (2017) became regular smokers before the age of 21 years. However, the Government is of the view that particular weight should be given to the data pertaining to younger smokers aged 18-39 years, as this would be more reflective of recent trends among the youth in Singapore.

[10] Based on the National Health Surveillance Survey 2013 among younger smokers aged 18-39 years. In comparison, the National Population Health Survey 2017 Pilot Study, which had a significantly smaller sample size, indicated that 41% of Singapore's young smokers aged 18-39 years started before they were 18 years old.

[11] 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-i86; Centre for Tobacco Control Research. The packaging of tobacco products. March 2012. See also Part 4.1 of this document and Part 1 of Appendix 3 below.

promotional effect) through older friends and family members who smoke, or supply under-aged youth with tobacco products.

Further details on tobacco product packaging and its role in promoting tobacco use are found in Part 4 below.

### 2.4 The Framework Convention on Tobacco Control

Singapore is a Party to the World Health Organization's *Framework Convention on Tobacco Control* ("FCTC"). The FCTC is a public health treaty, which imposes on treaty parties ("Parties") legal obligations with respect to tobacco control. In particular, the FCTC obliges Parties, in accordance with their capabilities, to implement comprehensive tobacco control strategies in order to "reduce continually and substantially the prevalence of tobacco use and exposure to tobacco smoke". Specifically, Article 11 of the FCTC obliges Parties to adopt and implement effective measures to ensure that tobacco product packaging and labelling do not promote a tobacco product by any means that is false, misleading, deceptive or likely to create an erroneous impression about the product's characteristics, health effects, hazards or emissions, while Article 13 requires Parties to prohibit all forms of tobacco advertising, promotion or sponsorship that promote a tobacco product by any means that is false, misleading, deceptive or likely to create an erroneous impression about the product's characteristics, health effects, hazards or emissions.

To help Parties meet their obligations under the FCTC, a set of internationally-agreed evidence-based Guidelines was adopted by consensus. The Guidelines reflect the consolidated views of the Parties on different aspects of implementing the FCTC and to promote best practices and standards among governments in fulfilling their FCTC obligations.

According to the Guidelines on Article 11 of the FCTC:

> "*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."*

The Guidelines on Article 13 also explain that:

*"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.*

*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 Guidelines go on to recommend that:

"*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."*

Singapore signed the FCTC in 2003 and became one of the first Parties to ratify the FCTC on 14 May 2004. The Government takes its obligations under the FCTC very seriously. Pursuant to our commitment to implement our obligations under the FCTC effectively, and in line with the FCTC Guidelines, the Government must give and is giving serious consideration to the implementation of standardised packaging.

## 2.5 Global movement towards standardised packaging

Several countries have moved towards standardised packaging since Australia's plain packaging legislation came into force in 2012. Standardised packaging has been fully implemented in the United Kingdom and France. Hungary, Ireland, New Zealand, Norway and Slovenia are at varying stages of implementation, while Thailand has passed enabling legislation for standardised packaging, but has yet to announce the date for full implementation.

## PART 3: THE SP PROPOSAL

### 3.1 Policy objectives

The Government is considering introducing standardised packaging and enlarged graphic health warnings for tobacco products sold in Singapore as further measures in its overall tobacco control strategy. As mentioned above, standardised packaging generally refers to the strict regulation of promotional aspects of tobacco packaging and standardisation of packaging elements. This includes removing all logos, colours, brand images, and promotional information on packaging, other than brand names and product names (variants) displayed in a standard colour and font style. Standardised packaging is often accompanied by the incorporation of prominent mandatory health warnings. For example, in Australia, the United Kingdom, France, and Ireland, standardised packaging measures incorporated increases in the size of mandatory health warnings on tobacco packaging.

The Government's SP Proposal similarly contemplates:

- the removal of all logos, colours, brand images, and promotional information on packaging, other than brand names and product names displayed in a standard colour and font style; and
- an increase in the minimum size of the mandatory graphic health warnings from the existing 50% to cover 75% of all specified tobacco product packaging surfaces.[12]

The objectives of the SP Proposal are to:[13]

- Reduce the attractiveness of tobacco products;
- Eliminate the effects of tobacco packaging as a form of advertising and promotion;

[12] See Regulations 4(2)(a) and 5(2)(a) of the Tobacco (Control of Advertisements and Sale) (Labelling) Regulations 2012.

[13] In arriving at these policy objectives, and designing the SP Proposal and assessing the feasibility and applicability of standardised packaging in Singapore, the Government took guidance from and referred to the World Health Organisation's publication, "Plain packaging of tobacco products: evidence, design and implementation" (2016).

- Reduce the ability of tobacco packaging to mislead about the harmful effects of smoking (including on the relative harmful effects between products);
- Increase the noticeability and effectiveness of graphic health warnings; and
- Better inform smokers and non-smokers of the risks associated with tobacco use.

Ultimately, the SP Proposal is intended to operate alongside other existing and possible future tobacco control measures (such as increased taxation and public education) to contribute towards meeting the Government's obligations under the FCTC, promote public health through the reduction of the prevalence of smoking in Singapore, and thereby constitute a significant step towards Singapore becoming a tobacco-free society.

### 3.2 Summary of the Government's preliminary assessment

After careful consideration of the evidence for and against the effectiveness of the SP Proposal as well as the feedback received in relation to the SP Proposal to-date, it is the Government's preliminary assessment that introducing the SP Proposal in Singapore would:

- Be an effective measure to reduce the attractiveness of tobacco products;
- Be an effective measure to eliminate the effects of tobacco packaging as a form of advertising and promotion;
- Be effective in reducing the ability of tobacco packaging to mislead about the harmful effects of smoking (including on the relative harmful effects between products);
- Be an effective means of increasing the noticeability and effectiveness of graphic health warnings; and
- Better inform smokers and non-smokers of the risks associated with tobacco use.

It is also the Government's preliminary assessment that the SP Proposal would operate alongside other existing and future tobacco control measures (such as increased taxation and public education) to contribute towards meeting the Government's obligations under the FCTC, promote public health through the reduction of the prevalence of smoking in Singapore, and thereby constitute a significant step towards Singapore becoming a tobacco-free society.

In forming its preliminary assessment, the Government has carefully reviewed relevant considerations including public health, intellectual property and international law perspectives with the aim of ensuring that any measures taken are consistent with our domestic and international obligations.

Before the Government takes a final decision whether to introduce the SP Proposal in Singapore, it wishes to seek further and more detailed views on the SP Proposal through this public consultation.

## 3.3 The SP Proposal under consideration

### *3.3.1. Standardised packaging and mandatory graphic health warning measures in other countries*

Australia was the first country in the world to introduce a standardised packaging measure (incorporating enlarged mandatory graphic health warnings) in 2012. Examples of what the front and back of a cigarette pack look like under the current Australian regulations may be found in **Appendix 1.**

Singapore has analysed the details of the measures in Australia, the United Kingdom, Ireland, and France. Subject to some variations between them (for example, in relation to the precise size of their enlarged graphic health warnings and whether standardised packaging applies to all tobacco products), the measures in these countries generally include the following key features:

- Standardised physical appearance of the package (i.e. having standardised colours, typeface font, and finish; standardised graphic health warnings; and prohibitions on brand elements);
- Standardised package size and shape;
- Standardised appearance of the cigarette stick (i.e. colour of cigarette paper and tip); and
- Enlarged graphic health warnings.

Singapore has closely studied the design of the measures in these countries and conducted local studies[14] before arriving at the key draft specifications set out in Part 3.3.3 below.

### *3.3.2 Scope of proposed measure*

The FCTC and its guidelines recommend applying standardised packaging to all categories of tobacco products and packaging.

In Australia and Ireland, standardised packaging is applied to all categories of tobacco products and packaging. In the United Kingdom, legislation allows for the application of standardised packaging to all categories of tobacco products and packaging; however, in practice, standardised packaging has only been applied to cigarettes and roll-your-own tobacco. Similarly, in Norway, the scope of its legislation covers all categories of tobacco products and packaging but, to date, standardised packaging has only been applied to cigarettes, roll-your-own tobacco and snus.[15]

The Government intends for specifications in its SP Proposal to apply to the retail packaging of all tobacco products sold in Singapore, including cigarillos, cigars, *ang hoon*, and roll-your-own tobacco. Cigarettes constitute the majority of the tobacco market in Singapore. While non-cigarette tobacco products make up a small proportion of the market, the policy objectives of standardised packaging set out in Part 3.1 above are applicable not just to cigarettes but to all tobacco products.[16] As all categories of tobacco products are harmful, the longer term objective is to reduce use of such products in order to protect public health. The

[14] See Part 4.3 below.

[15] A moist, powdered tobacco product that is popular in Norway and Sweden.

[16] Market research from Australia conducted prior to the introduction of standardised packaging had shown that standardised packaging could minimise appeal and perceptions of quality and maximise perceptions of harm to health in respect of cigars and cigarillos: Parr V, Tan B, Ell P. Market research to determine impact of plain packaging on other tobacco products. 2011, available at: http://www.health.gov.au/internet/publications/publishing.nsf/Content/mr-plainpack-mr-other-tob-products. The Post-Implementation Review studies had also confirmed the efficacy of standardised packaging in respect of cigars and cigarillos: see Miller CL, Ettridge KA, Wakefield M. "You're made to feel like a dirty filthy smoker when you're not, cigar smoking is another thing all together." Responses of Australian cigar and cigarillo smokers to plain packaging. Tobacco Control. 2015; 24(Suppl 2):ii58-ii65.

Government does not want the public to have the impression that non-cigarette products are less harmful than cigarettes; nor does it want to open up avenues for circumvention of the policy objectives of the SP Proposal.

The Government seeks views on the scope of application of the SP Proposal.

### *3.3.3 Proposed measure under consideration*

Based on the FCTC Guidelines, and after reviewing the measures introduced in other countries as well as the results of local studies conducted, the Government has developed a set of draft specifications for a possible measure (i.e. the SP Proposal) in Singapore, for the purpose of this public consultation. The key draft specifications, which may apply to all tobacco products, are as follows:

- The internal and external surfaces of all retail packages are to be in a prescribed colour(s);
- The size of all retail packages is to be of prescribed dimensions;
- All text on retail packages, including brand names, is to be in a standardised colour and typeface;
- The display of any branding (including logos, colours and other features associated with a tobacco brand), advertising and promotional elements, on the outside and inside of retail packages, attached to the package, or displayed on individual tobacco products themselves, will be prohibited, except that the brand and variant names can continue to be displayed in a standardised font and style;
- The size of graphic health warnings on retail packages is to be increased from the existing 50% to cover 75% of all specified retail packaging surfaces;
- The information and markings permitted to be displayed on retail packages will be limited to certain standardised elements;
- Retail packages will be required to be of a standardised shape, opening and finish; and
- Any wrapper around retail packages will be required to be transparent and colourless, without any other markings visible to the naked eye.

Further elaboration on and examples of how the draft specifications might appear if applied to tobacco products in Singapore are found in **Appendix 2**.

## PART 4: BASIS FOR THE GOVERNMENT'S PROPOSAL TO INTRODUCE THE SP PROPOSAL

The Government's proposal to introduce the SP Proposal is based on a substantial body of international research evidence and studies related to tobacco product marketing and standardised packaging.

HPB has also conducted several local studies relating to Singaporeans' perceptions of cigarette packaging and reactions to mock-ups of prototypes with standardised packaging and different sizes of graphic health warnings. The key international and local evidence considered by the Government in arriving at the SP Proposal is listed in **Appendix 3**. A list of all the studies, evidence and materials considered by the Government may be found at https://www.moh.gov.sg/proposed-tobacco-control-measures.

The Government has also consulted with experts in the fields of public health and marketing in assessing the international and local evidence referred to above. The public health experts that were consulted are Professor Chia Kee Seng, former Dean of the Saw Swee Hock School of Public Health, National University of Singapore, and Associate Professor Caroline Miller, Director of the Population Health Research Group at the South Australian Health and Medical Research Institute. The marketing experts that were consulted are Associate Professor Ang Swee Hoon and Associate Professor Leonard Lee, from the Department of Marketing, National University of Singapore Business School. Both sets of experts have produced reports (the "Chia/Miller Report" and the "Ang/Lee Report") that carefully assessed the relevant international and local evidence for and against standardised packaging. Copies of these reports may be found at https://www.moh.gov.sg/proposed-tobacco-control-measures.

After careful consideration of the evidence, the Government has reached the preliminary conclusion that the SP Proposal will be effective in meeting the policy objectives set out in Part 3.1 above. This part summarises the Government's preliminary conclusions, based on the evidence that it has reviewed, with respect to each of the policy objectives.

### 4.1 Tobacco packaging as a means of promoting tobacco use

The design of tobacco products and packaging has been used to promote tobacco products among adults and the young.[17] Key elements of tobacco packaging include brand imagery, logos, colours, and pack design. As noted in the Ang/Lee Report, cigarette packs serve as a "five-second commercial" whenever the pack is drawn from the shelf or one's pocket, held in the palm of a hand, or placed in full view on the table. Independent research and reviews of tobacco industry documents have found that packaging is an effective marketing medium that helps to build direct relationships between the tobacco company and the consumer through possession and use. Packaging innovation, design and value packaging are used not only to distinguish products from competitors but to promote the product, communicate brand values and target specific consumer groups.[18] It is also regarded by the tobacco industry as an effective means of promoting tobacco use in markets with a restrictive advertising and sponsorship environment such as Singapore.[19]

Tobacco product promotion has been particularly linked to the use of tobacco products by youth around the world.[20] Non-smoking adolescents who are more aware of tobacco advertising or receptive to it, were more likely to have experimented with cigarettes or become smokers.[21] The balance of evidence suggests that the appeal of branded packaging acts as one of the factors encouraging children and young adults to experiment with tobacco and to

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[17] Gendall P, Hoek J, Edwards R, McCool J. A cross-sectional analysis of how young adults perceive tobacco brands: implications for FCTC signatories. BMC Public Health. 2012; 12:796; and Cummings KM, Morley CP, Horan JK, Steger C, Leavell NR. Marketing to America's youth: Evidence from corporate documents. Tobacco Control. 2002; 11(Suppl 1):i5-i17. Further references may be found in Part 1 of Appendix 3 below.

[18] Centre for Tobacco Control Research. (2012). The packaging of tobacco products. Available at: https://www.cancerresearchuk.org/sites/default/files/cancer_research_uk-funded_report_on_tobacco_packaging_written_by_the_centre_for_tobacco_control_research.pdf

[19] Assunta M, Chapman S. ''The world's most hostile environment'': How the tobacco industry circumvented Singapore's advertising ban. Tobacco Control 2004. 13(Suppl II):ii51–ii57.

[20] DiFranza JR, Wellman RJ, Sargent JD, Weitzman M, Hipple BJ, Winickoff JP, Tobacco Consortium, Center for Child Health Research of the American Academy of Pediatrics. Tobacco promotion and the initiation of tobacco use: assessing the evidence for causality. Pediatrics. 2006; 117(6):e1237-48. Further references may be found in Part 1 of Appendix 3 below.

[21] Lovato C, Watts A, Stead LF. Impact of tobacco advertising and promotion on increasing adolescent smoking behaviours. Cochrane Database of Systematic Reviews. 2011; 5(10):CD003439.

establish and continue a habit of smoking.[22] This is pertinent to the situation in Singapore, where more than 90% of smokers in Singapore initiate smoking before the age of 21.[23]

## 4.2 International evidence on the efficacy of the SP Proposal

### *4.2.1 Standardised packaging reduces the attractiveness of tobacco products*

Many studies carried out in different countries have concluded that standardised packaging reduces the appeal of tobacco packaging and tobacco products amongst both adults and youth.[24]

These studies show that, among both smokers and non-smokers, standardised packs elicited more negative feelings about smoking, smokers (e.g. not as "cool") and starting to smoke.[25] Cigarettes from standardised packs were perceived to be less popular and were expected to taste worse.[26] Removing an increasing proportion of branding and design elements made packs increasingly less attractive to both adults[27] and adolescents.[28]

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[22] Chantler C. Standardised packaging of tobacco - Report of the independent review undertaken by Sir Cyril Chantler. 2014. Available at: https://www.kcl.ac.uk/health/10035-TSO-2901853-Chantler-Review-ACCESSIBLE.PDF.

[23] Ministry of Health, Singapore. National Health Surveillance Survey 2013.

[24] McNeill A, Gravely S, Hitchman SC, Bauld L, Hammond D, Hartmann-Boyce J. Tobacco packaging design for reducing tobacco use. Cochrane Database of Systematic Reviews. 2017, Issue 4. Art. No.: CD011244. Further references may be found in Part 2 of Appendix 3 below. See also analysis in the Ang/Lee Report.

[25] Stead M, Moodie C, Angus K, Bauld L, McNeill A, Thomas J, Hastings G, Hinds K, O'Mara-Eves A, Kwan I, Purves RI, Bryce SL. Is consumer response to plain/standardised tobacco packaging consistent with framework convention on tobacco control guidelines? A systematic review of quantitative studies. PLoS One. 2013; 8(10):e75919. Further references may be found in Part 2 of Appendix 3 below.

[26] Brose LS, Chong CB, Aspinall E, Michie S, McEwen A. Effects of standardised cigarette packaging on craving, motivation to stop and perceptions of cigarettes and packs. Psychology & Health. 2014; 29(7):849-60. Further references may be found in Part 2 of Appendix 3 below.

[27] 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.

[28] Germain D, Wakefield MA, Durkin SJ. Adolescents' perceptions of cigarette brand image: Does plain packaging make a difference? Journal of Adolescent Health. 2010; 46(4):385-92.

Standardised packaging has also been found to be effective in discouraging smoking initiation amongst non-smoking adolescents[29], and to reduce the attractiveness of "female-oriented" packs among women.[30] Standardising cigarette stick designs can also prevent the use of differential designs which affect users' perceptions of attractiveness.[31]

### *4.2.2 Standardised packaging eliminates the effects of tobacco packaging as a form of advertising and promotion*

According to the Government's review of available literature, tobacco companies have, since the 1950s, recognised the role that packaging plays in boosting their advertising and sales. One independent analysis of 66 tobacco industry documents published between 1973 and 2002 found that tobacco companies credited variations in pack design (shape, size and openings) with increasing sales,[32] while researchers who reviewed one company's publicly-available annual reports from 2005 to 2015 noted that the company had identified packaging redesign as a continual process instrumental to providing brands with a competitive edge and increased sales.[33]

Standardised packaging is expected to limit the role of tobacco packaging in advertising and promoting tobacco products.[34]

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[29] See, for example, McCool J, Webb L, Cameron LD, Hoek J. Graphic warning labels on plain cigarette packs: will they make a difference to adolescents? Social Science & Medicine. 2012; 74(8):1269-73. Further references may be found in Part 2 of Appendix 3 below.

[30] Doxey J, Hammond D. Deadly in pink: The impact of female oriented packaging among young women. Tobacco Control. 2011; 20:353–60.

[31] Borland R, Savvas S. Effects of stick design features on perceptions of characteristics of cigarettes. Tobacco Control. 2013; 22(5):331-7.

[32] Kotnowski K, Hammond D. The impact of cigarette pack shape, size and opening: Evidence from tobacco company documents. Addiction. 2013; 108:1658–68.

[33] Barraclough S, Gleeson D. Why packaging is commercially vital for tobacco corporations: What British American Tobacco companies in Asia tell their shareholders. Asia Pacific Journal of Public Health. 2017; 29(2): 132–9.

[34] See the Ang/Lee Report.

*4.2.3 Reducing the ability of packs to mislead by suggesting that some products are less harmful than others*

Descriptive phrases such as "lower tar", "light", and "ultra-light" can induce the wrong belief that such cigarettes are less harmful than "regular" cigarettes.[35] Though misleading descriptors are now prohibited in Singapore, other design elements such as pack colour and pack shape/dimensions continue to be used by the tobacco industry to convey that some tobacco products are less harmful than others.[36] For example, tobacco companies use red and brown packaging to suggest a full, rich and satisfying flavour, blue for mild and mellow flavours, and green for menthol, cool and fresh flavours, while lighter colours are used to suggest lower strength or milder cigarettes with less impact on health.[37]

A broad range of international evidence from different countries suggests that tobacco packaging, and in particular the use of colours on cigarette packs that continue to be associated with "mildness" or "lightness" of tobacco products, continue to have the effect of misleading consumers as to the relative harmfulness of such tobacco products.[38] This is consistent with internal documents from the tobacco industry.[39] For example, an internal document shows that,

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[35] Cummings KM, Hyland A, Bansal MA, Giovino GA. What do Marlboro Light smokers know about low tar cigarettes? Nicotine & Tobacco Research. 2004; 6(Suppl 3):S323-32; see also Pollay R, Dewhirst T. The dark side of marketing seemingly "Light" cigarettes: Successful images and failed fact. Tobacco Control. 2002; 11(Suppl 1):i18-i31. Further references may be found in Part 4 of Appendix 3 below.

[36] Mutti S, Hammond D, Borland R, Cummings KM, O'Connor RJ, Fong GT. Beyond Light & Mild: Cigarette brand descriptors and perceptions of risk in the International Tobacco Control (ITC) Four Country Survey. Addiction. 2011; 106(6):1166-75; Peace J, Wilson N, Thomson G, Edwards R. Colouring of cigarette packs in New Zealand: does it mislead consumers? November 2007. Health Promotion & Policy Research Unit, University of Otago, Wellington. Available at: http://itc.medaidoc.com/files/Peace_et_al.,_2007._colouring_of_cigarette_packs_in_New_Zealand.pdf; Ford A, Moodie C, Purves R, MacKintosh AM. Adolescent girls and young adult women's perceptions of superslims cigarette packaging: A qualitative study. BMJ Open. 2016; 6:1-8. Further references may be found in Part 4 of Appendix 3 below.

[37] Lempert LK, Glantz S. Packaging colour research by tobacco companies: The pack as a product characteristic. Tobacco Control 2017; 26:307-315. Further references may be found in Part 4 of Appendix 3 below.

[38] Moodie C, Stead M, Bauld L, McNeill A, Angus K, Hinds K, Kwan I, Thomas J, Hastings G, O'Mara-Eves A. Plain Tobacco Packaging: A Systematic Review. 2012. Available from the University of Stirling. (The "Stirling Review"). See also Parr V, Tan B, Ell P, Miller K. Market research to determine effective plain packaging of tobacco products. 2011. Study 4: Online: Consumer perceptions of plain pack colour with brand elements. Parr V, Tan B, Ell P, Miller K. Market research to determine effective plain packaging of tobacco products. 2011. GfK Blue Moon, Sydney. Further references may be found in Part 4 of Appendix 3 below.

[39] These documents can be viewed at the Truth Tobacco Industry Documents website available at http://www.industrydocumentslibrary.ucsf.edu/tobacco.

in Singapore, a tobacco company had seen the value of using a light shade of blue on the packaging of its cigarettes instead of red in order to better convey the perception that cigarettes previously marked as "Lights" are less harmful to health and therefore safer for consumption.[40]

Standardised packaging has the potential to prevent or reverse these effects.[41]

### *4.2.4 Increasing noticeability and effectiveness of graphic health warnings*

The literature shows that graphic health warnings on tobacco product packaging are an effective means of communicating health information to both smokers and non-smokers.[42]

The Government's review of the literature identified studies on how attention to graphic health warnings on cigarette packaging was affected by pack design and how standardised packaging can therefore potentially accentuate the salience of graphic health warning labels on tobacco packaging. For instance, pack designs such as bevelled or rounded packs, as well as novel pack opening designs, were able to distract smokers from health warnings on the pack, potentially creating product appeal.[43] Studies observing eye movements and brain activity found that both smoker and non-smoker adults and adolescents paid greater visual attention to health warnings on standardised packs compared to branded packs.[44] Standardised packaging was also found to have a positive impact on the recall of health warnings[45] and to delay the

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[40] See footnote 19.

[41] Hammond, D., Dockrell, M., Arnott, D., Lee, A., & McNeill, A. (2009). Cigarette pack design and perceptions of risk among UK adults and youth. The European Journal of Public Health, 19(6), 631-637. Further references may be found in Part 4 of Appendix 3 below.

[42] Borland R, Wilson N, Fong G, Hammond D, Cummings KM, Yong HH, Hosking W, Hastings G, Thrasher J, McNeill A. Impact of graphic and text warnings on cigarette packs: Findings from four countries over five years. Tobacco Control. 2009; 18(5):358-64; and Fong GT, Hammond D, Hitchman SC. The impact of pictures on the effectiveness of tobacco warnings. Bulletin of the World Health Organization. 2009; 87:640-3. Further references may be found in Part 5 of Appendix 3 below. See also Section 4.2.5 below.

[43] 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(2):97-102.

[44] Maynard OM, Brooks JC, Munafò MR, Leonards U. Neural mechanisms underlying visual attention to health warnings on branded and plain cigarette packs. Addiction. 2017; 112:662-72. Further references may be found in Part 5 of Appendix 3 below. See also the Ang/Lee Report.

[45] Beede P, Lawson R. The effect of plain packages on the perception of cigarette health warnings. Public Health. 1992; 106(4):315-22. Further references may be found in Part 5 of Appendix 3 below.

known decline in attention to graphic health warnings over time.[46] Even where the degree of attention people placed on health warning labels did not change, participants looked more closely at graphic health warnings on standardised packs and also thought more about what the warnings were telling them.[47]

### *4.2.5 Better informing smokers and non-smokers of the risks associated with tobacco use*

Multiple international studies[48] indicate that larger graphic health warnings (above the current 50% minimum size required in Singapore) are more effective in communicating the harms of smoking and discouraging tobacco consumption. Larger or more noticeable health warnings are also associated with changes in smoking behaviour, such as increasing attempts to quit smoking.[49] Both youths and adults have been found to be more likely to recall larger warnings, rate larger warnings as having greater impact and equate the size of the warnings with the magnitude of the risk;[50] in part due to the enhanced legibility and noticeability of health warnings as the size of the graphic health warning increases.[51]

In addition, while the evidence indicates that standardised packaging and increasing the size of graphic health warnings would independently have the effect of reducing positive perceptions and therefore the demand for tobacco products, the lowest demand was achieved

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[46] Swayampakala K, Thrasher JF, Yong HH, Nagelhout G, Li L, Borland R, Hammond D, O'Connor RJ, Hardin JW. Over-time impacts of pictorial health warning labels and their differences across smoker subgroups: Results from adult smokers in Canada and Australia. Nicotine & Tobacco Research. 2017.

[47] Moodie CS, Mackintosh AM. Young adult women smokers' response to using plain cigarette packaging: a naturalistic approach. BMJ Open. 2013; 3(3): e002402.

[48] Hammond D. Health warning messages on tobacco products: A review. Tobacco Control. 2011; 20(5), 327-37. Further references may be found in Part 6 of Appendix 3 below.

[49] Brennan E, Durkin S, Coomber K, Zacher M, Scollo M, Wakefield M. Are quitting-related cognitions and behaviours predicted by proximal responses to plain packaging with larger health warnings? Findings from a national cohort study with Australian adult smokers. Tobacco Control. 2015; 24:ii33–41.

[50] Les Etudes De Marche Createc. Quantitative study of Canadian youth smokers and vulnerable non-smokers: Effects of modified packaging through increasing the size of warnings on cigarette packages. 2008. Available at: http://www.tobaccolabels.ca/healt/canada~3.

[51] Shanahan P, Elliot D. Evaluation of the effectiveness of the graphic health warnings on tobacco product packaging 2008, Australian Government Department of Health and Ageing.

by combining the two measures.[52] Larger warnings and standardised packaging together result in lower levels of consumer appeal and demand.[53] In Australia, data collected one year after the introduction of standardised packaging and larger graphic health warnings showed that more smokers first noticed the graphic health warning when looking at the pack in comparison with the pre-standardised packaging pack and smaller graphic health warning.[54]

It is for this reason that the Government proposes to incorporate an increase in the minimum size of the mandatory graphic health warnings from the existing 50% to cover 75% of all specified tobacco retail packaging surfaces in the SP Proposal.

### *4.2.6 The Australian experience*

Australia was the first country in the world to introduce a plain packaging measure, in December 2012. Notably, the Australian plain packaging measure also incorporated an increase in the minimum size of the mandatory graphic health warning from 30% of the front of the cigarette pack and 90% of the back of the cigarette pack to 75% and 90% of the front and back of the cigarette pack. This increase in the size of graphic health warnings is aligned with the Government's SP Proposal to increase the minimum size of the mandatory graphic health warnings from the existing 50% to 75%.

In April 2015, the Australian government published its Post-Implementation Review data in a series of peer-reviewed journal papers. The studies concluded that the objectives of Australia's plain packaging measure[55] had been largely met, that "plain packaging is severely

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[52] Thrasher JF, Rousu MC, Hammond D, 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; 102:41–8. Further references may be found in Part 6 of Appendix 3 below.

[53] Hoek J, Wong C, Gendall P, Louviere J, Cong K. Effects of dissuasive packaging on young adult smokers. Tobacco Control. 2011; 20(3):183-8.

[54] 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:ii17–25.

[55] These were to: (a) reduce the appeal of tobacco products to consumers; (b) increase the effectiveness of health warnings on the retail packaging of tobacco products; and (c) reduce the ability of the retail packaging of tobacco products to mislead consumers about the harmful effects of smoking or using tobacco products.

restricting the ability of the pack to communicate and create appeal with young people and adults", and that "plain packaging [is] fulfilling its core aims of reducing appeal, particularly among young adults, and increasing warning salience."[56] The Post-Implementation Review report, which was issued by the Department of Health, also provides data which shows that 34 months after the introduction of standardised packaging, there had been an observable impact on Australia's smoking prevalence, after adjustments for the impact of other tobacco control measures.[57] This is supported by other sources of smoking prevalence data which showed continuing downward trends consistent with the conclusion that standardised packaging is having an impact on smoking prevalence,[58] though it has been brought to the Government's attention that there are also sources of data which would appear to suggest that standardised packaging had no impact on tobacco consumption;[59] Part 4.4 below addresses some of these data.

The Government notes that any impact of standardised packaging on smoking prevalence may only be observable in the longer term. Nevertheless, the Government has reviewed the studies and data published by the Australian government and, subject to the analysis in Part 4.2.7 below, is of the view that the data pertaining to the Australian experience generally provides good grounds to believe that standardised packaging, working in combination with other tobacco control measures, will be effective in reducing smoking prevalence in Singapore in the longer term.

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[56] Hastings GB, Moodie C. Death of a salesman. Tobacco Control. 2015;24: ii1-ii2.

[57] Chipty T. Study of the impact of the tobacco plain packaging measure on smoking prevalence in Australia. Appendix A. In: Australian Government Department of Health. Post-Implementation Review. Tobacco Plain Packaging. 2016. 24 January 2016.

[58] See the 2013 Australian Institute of Health and Welfare National Drug Strategy Household Survey (available at: http://www.aihw.gov.au/repoerts/illicit-use-of-drugs/2013-ndshs-detailed/contents/table-of-contents), 2014 Australian Secondary School Alcohol and Drug Survey (available at: http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/Publishing.nsf/content/australian-secondary-students-alcohol-drug-survey), and 2014-2015 Australian National Health Survey (available at: http://www.abs.gov.au/ausstats/abs@.nsf/mf/4364.0.55.001).

[59] These include data from the 2012-2014 National Plain Packaging Tracking Survey (available at: http://www.health.gov.au/internet/main/publishing.nsf/content/tobacco-plain-packaging-evaluation), the Cancer Institute New South Wales Tobacco Tracking Survey (ongoing since 2005; available at http://www.cancerinstitute.org.au/data-research/data-held-by-cinsw/cancer-institute-tobacco-tracking-survey), the Australian Treasury Office, and the Australian Bureau of Statistics.

### *4.2.7 Applicability of international evidence to Singapore*

The Government is of the view that the international evidence on the effects of standardised packaging and enlarged graphic health warnings set out above can be generalised to the local context. The Ang/Lee Report notes that many of the effects of standardised packaging and enlarged graphic health warnings pertain to universal basic cognitive functions such as attention, perception, inference, and expectation, and there is no reason to expect that these effects would not equally apply to Singapore consumers. While these cognitive antecedents can be conceived as primary drivers of the effects of standardised packaging on consumption, cultural antecedents (if any) of these effects can be conceived as secondary drivers. In general, cross-country comparisons conducted by the International Tobacco Control Policy Evaluation Project have also demonstrated that various tobacco control interventions (ranging from the introduction of health warning labels, to pricing and taxation of tobacco products, to controls on tobacco advertising and promotion) have had comparable psychosocial and behavioral impact on different populations found across different countries in different regions.[60] That the effects of standardised packaging have been demonstrated consistently across different countries and demographic factors (e.g. gender and socioeconomic status) using a variety of empirical methodologies lends considerable support to the robustness and generalisability of these effects.

Moreover, the Ang/Lee Report notes that as Singapore is a more multicultural and collectivistic society than most western societies, one could expect the socially driven effects of standardised packaging (for example, the concealment of one's cigarette pack from the view of others) and the negative effects of smoking, made more salient and noticeable through the graphic health warnings, to be stronger and more severe in Singapore.

The Chia/Miller Report notes that Singapore shares substantial similarities with countries from which the majority of the international evidence has been collected (Australia, the United States, the United Kingdom, Canada and several European countries) in terms of socio-economic status, general and health literacy, experience in tobacco control measures, as well as known factors of smoking initiation and patterns of prevalence. In particular, the

[60] International Tobacco Control (ITC) Policy Evaluation Project. ITC Results. Available at: http://www.itcproject.org/itc_results/.

Chia/Miller Report notes that Singapore is similar to Australia in terms of literacy and numeracy, economic status, having a mature tobacco control policy environment – i.e. both countries have a comprehensive suite of tobacco control measures (e.g. taxes, advertising ban, minimum legal age, smoke-free zones) – as well as similar patterns of smoking prevalence and known factors of smoking initiation. Given the similar restrictions on tobacco advertising, the marketing strategies used in both countries would also be similar. Thus, the Chia/Miller Report is of the view that it would be reasonable to conclude that Australia's experience with standardised packaging as described in the studies conducted there and the Australian Post-Implementation Review would be applicable to Singapore.

### 4.3 Local evidence on graphic health warnings and standardised packaging

From 2014 to 2016, HPB also conducted several local studies (referred to hereafter, respectively, as the Phase 1, Phase 2, Phase 3 and Phase 4 studies) to assess perceptions towards tobacco packaging designs.[61]

The Phase 1 study involved a total of 320 Singapore Citizens or Permanent Residents (160 smokers and 160 non-smokers) aged 18-39 years old in an interview-administered survey conducted in households across different geographical locations in Singapore. The objective of the study was to examine the perceived attractiveness and appeal of tobacco products and noticeability of graphic health warnings, in relation to current cigarette pack designs and a mock-up of a standardised pack.

The Phase 2 and Phase 3 studies used qualitative and quantitative methods respectively to determine the features that would reduce the attractiveness and appeal of tobacco packaging.

- The qualitative studies (Phase 2) aimed to determine the most effective elements of cigarette packs that would reduce the attractiveness and appeal of tobacco products to smokers and non-smokers, and identified optimal elements of standardised packaging that might be applied to Singapore's local context. A total of 48 focus group discussions involving 8-10 participants each and five in-depth interviews were conducted as part of these studies.

[61] See references in Part 9 of Appendix 3 below.

- Thereafter, based on the elements identified in the qualitative studies, a quantitative study (Phase 3) consisting of a street intercept survey involving more than 1,000 Singaporeans (548 smokers and 528 non-smokers) aged 18 years and above was conducted using mock-ups of standardised packages with different colours and different sizes of graphic health warnings.

The Phase 4 study sought to explore the effectiveness of standardised packaging as applied to non-cigarette tobacco products such as cigars, cigarillos, pipe tobacco, *ang hoon*, and *beedies*. Feedback was obtained from a total of 9 focus group discussions of 8 to 10 participants who were asked to rate and rank existing branded packaging for non-cigarette tobacco products against mock-ups of standardised packaging.

Copies of the detailed reports of these studies may be found at https://www.moh.gov.sg/proposed-tobacco-control-measures.

The findings from and methodologies employed in these local studies have been reviewed by Professor Chia and Associate Professor Miller, the Government's experts in the field of public health. The Chia/Miller Report concludes that:

- The Phase 1 study was generally well-designed. However, the initial analysis took into account all the responses to the different packs as a whole. Professor Chia and Associate Professor Miller recommended re-analysis to examine each variable independently and present the results of these variables separately. The data was therefore reanalysed in accordance with this recommendation.
- While some of the questions used in the Phase 1 study could have been better phrased[62], the large majority of the questions were adequately phrased. Therefore, the Phase 1 study was still a sufficiently well-designed study to test the relationships it sought to assess.
- Combining the results for Gudang Garam with the other international tobacco brands might be less relevant, because Gudang Garam is a very local form of tobacco (clove

[62] For example, respondents were asked to rate the statement "the graphic health warning is noticeable/stands out visually on the pack". However, it was not made clear what "noticeable" meant. The Chia/Miller Report notes that noticeability is subjective and that a more optimal phrasing would have described what it meant to be "more noticeable" – for example, "first feature seen".

cigarettes) and is different from the more common international brands. Analysing Gudang Garam as part of the Phase 1 study would also not have been useful given its small market share.

- Notwithstanding the limitations discussed above, the Phase 1 study was still a sufficiently well-designed study to test the relationships it sought to assess. The findings of the study were also generally consistent with other local and international literature on consumer-brand relationship.
- The Phase 2 and Phase 3 studies were appropriately designed. In particular, it was appropriate to use qualitative (Phase 2) followed by quantitative (Phase 3) approaches in order to determine the most effective elements and specifications of standardised packaging.
- While a minority of questions posed in the Phase 3 study could have been better phrased,[63] these did not materially influence the study's main findings, which were consistent with the existing body of knowledge and reinforced the role of branding and colour in influencing consumer choices. In particular, the finding that dark colour packaging with larger graphic warning would be least attractive was consistent with the published Australian standardised packaging experience.
- The Phase 4 study on non-cigarette products attempted to combine a qualitative (focus group) methodology with elements of a quantitative study. However, the sample sizes involved in the focus groups were very low. As such, any quantitative results collected from the focus group samples were difficult to interpret, and arguably of little value. A further limitation to the qualitative insights that the study offered was that the focus group participants giving feedback were not regular users of the non-cigarette tobacco products being studied.

The Government is therefore of the view that:

- Current cigarette pack designs influence both smokers' and non-smokers' perceptions towards various attributes of cigarette packs. In general, attractive pack designs were associated with higher quality cigarettes. In addition, among smokers, perceived pack

[63] For example, in order to test appeal and how appeal may lead to a particular kind of behaviour, respondents were asked: "To what extent do you agree that this pack design is appealing to you, and (for non-smokers) encourages you to try smoking OR (for smokers) to buy the pack?" However, the Chia/Miller Report notes that the question could have been better framed to avoid testing multiple concepts simultaneously.

attractiveness was generally associated with preference to be seen smoking the brand associated with the pack; whereas among a significant minority of non-smokers, perceived pack attractiveness was associated with intention to try smoking.

- Standardised packs were generally seen as less attractive compared to current cigarette packs. In particular, packs with darker colour and at least 75% graphic warning were considered to be least attractive and perceived to be most harmful to health. Health warnings on packs with at least 75% graphic warnings and darker colour were also more noticeable.
- These findings were generally consistent with international evidence which showed that limiting brand elements through standardised packaging and increasing the minimum size of existing graphic health warnings (in particular, increasing their minimum size from 50% to 75% of the retail package) would be effective in meeting the objectives of the SP Proposal.
- The results of the study pertaining to non-cigarette tobacco products were inconclusive. HPB is currently commissioning a qualitative study on standardised packaging in relation to non-cigarette tobacco products. This study, which may or may not impact the view provisionally expressed in Part 3.3.2, will be made available for public comment at https://www.moh.gov.sg/proposed-tobacco-control-measures in due course.

### 4.4 Evaluation of evidence against standardised packaging

In the course of evaluating the evidence for the efficacy of the SP Proposal, the Government reviewed various reports and studies with findings that did not support the conclusion that standardised packaging would be an effective measure in meeting its stated policy objectives. In particular, these included studies where some of the findings suggest that:

- Standardised packaging may not result in significant changes in the perceived risk or harmfulness of smoking, the perceived tar level in cigarettes or volume of smoke, or perceived difference in taste or strength across different brands of cigarettes;[64]

[64] Brose LS, Chong CB, Aspinall E, Michie S, McEwen A. Effects of standardised cigarette packaging on craving, motivation to stop and perceptions of cigarettes and packs. Psychology & Health. 2014; 29(7):849-60.

- Standardised packaging did not change the frequency at which Australian students attended to, thought, or talked about health warnings on cigarette packaging that they had encountered in the previous 6 months;[65]
- There is no evidence to support the proposition that changes in cigarette packaging affect adolescents' experimentation with or use of cigarettes;[66] and
- Standardised packaging either had no effect on smoking intentions or resulted in mixed findings.[67]

Having considered this evidence, it is the Government's assessment that, on balance, these reports and studies do not outweigh the preponderance of evidence supporting the conclusion that standardised packaging will meet its stated objectives. In particular:

- There remains a broad range of evidence (supported by internal documents from the tobacco industry) to support the conclusion that tobacco packaging continues to mislead consumers about the relative harmfulness of different tobacco products and to suggest that standardised packaging has the potential to either prevent and/or reverse these effects[68] or that it would, at least, not aggravate any potential misleading claims that tobacco companies may make on cigarette packs about their cigarettes or smoking in general.[69]

[65] White V, Williams T, Faulkner A, Wakefield M. Do larger graphic health warnings on standardised cigarette packs increase adolescents' cognitive processing of consumer health information and beliefs about smoking-related harms? Tobacco Control. 2015; 24:ii50–7.

[66] Steinberg L. Adolescent decision making and the prevention of underage smoking. 2010. Available at: https://www.jti.com/about-us/our-business/key-regulatory-submissions.

[67] Schüz N, Eid M, Schüz B, Ferguson SG. Immediate effects of plain packaging health warnings on quitting intention and potential mediators: Results from two ecological momentary assessment studies. Psychology of Addictive Behaviors. 2016; 30(2):220-8; Gallopel-Morvan K, Hoek J & Rieunier S. (2017). Do plain packaging and pictorial warnings affect smokers' and non-smokers' behavioural intentions? Journal of Consumer Affairs. February 2017 DOI: 10.1111/joca.12145; and Mannocci A, Colamesta V, Mipatrini D, Messina G, Gualano MR, Gianfagna F, Boccia G, Langiano E, Nicolotti N, Veronesi G, Siliquini R, De Vito E, La Torre G. From directive to practice: Are pictorial warnings and plain packaging effective to reduce the tobacco addiction? Public Health. 2015; 129(12):1563-70.

[68] See Part 4.2.3 above.

[69] See the Ang/Lee Report.

- The international evidence strongly suggests that standardised packaging increases the noticeability and effectiveness of graphic health warnings.[70] While studies to the contrary may be found, such studies appear to be in the minority and do not seriously undermine the evidence for the effectiveness of standardised packaging in this regard.

Further, the Ang/Lee Report noted that some of the studies which purported to find no effect on smoking intentions, or which had mixed findings, faced methodological limitations.

The Government also notes that a team of Cochrane researchers from the United Kingdom and Canada had, in 2017, summarised results from studies that examined the impact of standardised packaging on tobacco attitudes and behaviour and concluded that the evidence to support the effectiveness of standardised packaging in affecting tobacco use prevalence was of low "grade" because the studies reviewed were not randomised controlled clinical trials.[71]

However, as observed by Professor Chia and Associate Professor Miller, it would be difficult (if not impossible) to evaluate the impact of population-level interventions such as standardised packaging through randomised controlled clinical trials. Moreover, the Cochrane researchers did in fact conclude that the evidence suggested that standardised packaging may have the effect of reducing smoking prevalence.

The Government's attention has also been drawn to materials which claim that Australia's plain packaging measure had failed to reduce smoking prevalence in Australia. These materials included reports commissioned by the tobacco industry, one other study by experts linked with the tobacco industry, and a literature review on standardised packaging and health warnings.[72]

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[70] See Part 4.2.4 above. See also Yong HH, Borland R, Hammond D, Thrasher JF, Cummings KM, Fong GT. Smokers' reactions to the new larger health warning labels on plain cigarette packs in Australia: Findings from the ITC Australia project. Tobacco Control. 2016; 25(2):181-7.

[71] McNeill A, Gravely S, Hitchman SC, Bauld L, Hammond D, Hartmann-Boyce J. Tobacco packaging design for reducing tobacco use. Cochrane Database of Systematic Reviews. 2017, Issue 4. Art. No.: CD011244.

[72] References for some of these may be found in Part 10 of Appendix 3 below.

Briefly, the evidence against standardised packaging as set out in these reports and studies is as follows:

- There is no proof that the introduction of plain packaging in Australia has had the effect of reducing smoking prevalence. Smoking prevalence was on a linear downward trend among both adults and adolescents prior to the introduction of plain packaging and there is no evidence that the measure affected the rate of decrease.[73]
- Instead, data collected in Australia seemed to show that there was: (a) no decline in cigarette consumption following the introduction of plain packaging; and (b) a statistically significant increase in the number of people describing themselves as "daily smokers" in certain states.[74] In addition, as compared to New Zealand, Australia had seen an increase in cigarette consumption, decrease in price of cigarettes and more smokers switching to cheaper brands of cigarettes, following the introduction of standardised packaging.[75]
- Australia's plain packaging measure did not have the effect of changing smokers' attitudes towards smoking. Instead, following the implementation of plain packaging, smokers were more likely to reject graphic health warning messages and to feel like health warnings have been exaggerated.[76]

The reports also criticised the way in which some of the studies in favour of standardised packaging were carried out. In particular, they allege that the process by which some of the studies evaluating the Australian plain packaging measure were conducted was not transparent, broad, tested or rigorous;[77] and that the studies, by focusing on components

[73] Kaul A, Wolf M. The (possible) effect of plain packaging on smoking prevalence of minors in Australia: A trend analysis. 2014. Available at: http://www.econ.uzh.ch/static/workingpapers.php?id=828; Kaul A, Wolf M. The (possible) effect of plain packaging on smoking prevalence in Australia: a trend analysis. 2014. Available at: http://www.econ.uzh.ch/static/workingpapers.php?id=844.

[74] Viscusi WK. Analysis of CITTS data and NTPPTS data: A report for the Post-Implementation Review. 2015

[75] Dryden N. The impact of Tobacco Plain Packaging in Australia: An update report for the Post-Implementation Review. 2015.

[76] See footnote 7474.

[77] Davidson S, de Silva A. Stubbing out the evidence of tobacco plain packaging efficacy: An analysis of the Australian National Tobacco Plain Packaging Survey. 2016. Available at: https://ssrn.com/abstract=2780938.

relating to pack appeal, perceptions and intentions or attitudes rather than actual measures of cigarette consumption or quitting behaviour, do not provide consistent evidence of a positive effect of plain packaging.[78]

Having carefully considered the various reports and studies that suggest that the Australian plain packaging measure has not been effective, and having taken into account the assessment of Professor Chia and Associate Professor Miller on these reports, the Government is of the view that these reports should be accorded limited weight. This is because, on an overall assessment and based on criteria that include the independence of the authors and peer-review status, the quality of evidence supporting the effectiveness of standardised packaging and enlarged graphic health warnings significantly exceeds that of the evidence against the same. In summary, the Government notes that:

- The evidence for standardised packaging is based on studies conducted over a considerable period of time and amongst many different groups of people. The totality of the evidence set out in Parts 4.2 and 4.3 above and the consistency of their conclusions are a strong indicator that standardised packaging is likely to be an effective measure.
- The studies arguing that the introduction of standardised packaging in Australia did not have the effect of reducing smoking prevalence or of changing smokers' attitudes towards smoking were not published in any peer-reviewed journal, appear to be methodologically flawed and have been subject to significant criticism in peer-reviewed scientific literature, including a reanalysis (of data from one of the studies) that showed a decline in smoking prevalence following introduction of standardised packaging in Australia.[79] In contrast, the Post-Implementation studies[80] from Australia consist of a substantial body of federal and local surveys evaluating the early impact of Australia's standardised packaging measure and supporting the conclusion that Australia's

[78] See footnote 74.

[79] Diethelm PA, Farley TM. Refuting tobacco-industry funded research: Empirical data shows decline in smoking prevalence following introduction of plain packaging in Australia. Tobacco Prevention & Cessation. 2015; 1:6. Further references may be found in Part 10 of Appendix 3 below.

[80] Hastings GB, Moodie C. Death of a salesman. Tobacco Control. 2015; 24: ii1-ii2. Further references may be found in Part 7 of Appendix 3 below.

standardised packaging measure had begun to show its intended impact of reducing the appeal of tobacco products, increasing the noticeability of graphic health warnings and reducing the ability of tobacco product packaging to mislead about its harmful effects. The Government and its experts have also carefully reviewed the studies underlying the Australian Post-Implementation Review and share the view that their methodologies are sound and their findings can be relied upon.

- The study[81] arguing that there had been (a) no decline in cigarette consumption following the introduction of standardised packaging, and (b) a statistically significant increase in the number of people describing themselves as "daily smokers" in certain states, has its own limitations. For instance, the data utilised in the study was based on surveys of recent actual smokers and did not provide evidence on smoking prevalence or the impact of standardised packaging on potential new smokers. There is also evidence to show that the same data relied upon by the study to show that standardised packaging had no impact on reducing smoking could (with the modification of certain controls in the evaluation of the data) be used to illustrate that there *was* such an effect.[82] The Government is of the view, therefore, that the reliability of the study's claims is highly questionable and potentially overstated.
- The study[83] comparing the Australian and New Zealand experience asserts that standardised packaging is associated with an increase in consumption, a drop in prices and an acceleration of "down trading", relative to New Zealand. However, the Government notes that recommended prices of cigarettes in Australia actually increased post-standardised packaging.[84] It is also worth noting that New Zealand had a more aggressive approach to tobacco tax increases than Australia over the period examined and, as such, is not an appropriate comparison.

[81] See footnote 74.

[82] See footnote 54.

[83] See footnote 75.

[84] Scollo M, Zacher M, Coomber K, Bayly M, Wakefield M. Changes in use of types of tobacco products by pack sizes and price segments, prices paid and consumption following the introduction of plain packaging in Australia. Tobacco Control 2015; 24: ii66–ii75.

## PART 5: EVALUATION OF OTHER CONCERNS RAISED WITH REGARD TO STANDARDISED PACKAGING

During the 2015/2016 public consultation, the Ministry of Health received a total of 3,810 responses in relation to standardised packaging and/or enlarged graphic health warnings. These included responses received from the tobacco industry, tobacco retailer associations and organisations known to work with or have been funded by the tobacco industry, or with tobacco companies as members.[85] Of those who responded in relation to standardised packaging and enlarged graphic health warnings respectively, 52% supported standardised packaging and 56% supported enlarged graphic health warnings as positive steps towards enhancing Singapore's tobacco control measures. Since the 2015/2016 public consultation, the Government has continued to receive feedback with regard to the possible introduction of the SP Proposal in Singapore. Part 5 of this document sets out the major concerns of which the Government is aware, and also sets out the Government's evaluation of these concerns, taking into account the evidence on the efficacy of the SP Proposal set out in Part 4 above.

### 5.1 Whether standardised packaging would facilitate the counterfeiting of cigarettes

Counterfeit cigarettes, also known as fake cigarettes, are cigarettes which were manufactured without the consent of the authorised owner but appear to be genuine products. The tobacco industry has raised concerns that standardised packaging would facilitate the counterfeiting of cigarettes by reducing the costs of producing counterfeit goods. It is claimed that the single design "template" for tobacco products would make it difficult for customs agents and law enforcement officials to distinguish real goods from imitations, while also making the black market more appealing on account of it being the cheaper alternative.

[85] These include the Association of European Businesses, Australasian Association of Convenience Stores, British American Tobacco, Canadian Chamber of Commerce, Democracy Institute, EU-ASEAN Business Council, EU-Georgia Business Council, EuroCham, Fu Fa Coffeeshop, International Chamber of Commerce, International Chamber of Commerce (Georgia), Japan Chamber of Commerce, Japan Tobacco Incorporation, JT International Tobacco Services (Singapore), Kamar Dagang Dan Industri Indonesia (KADIN) (Indonesian Chamber of Commerce and Industry), Ontario Chamber of Commerce, Philip Morris International, Philip Morris Singapore, Singapore International Chamber of Commerce, Singapore Retailers Association, The American Chamber of Commerce in Singapore, Tobacco Association Singapore, US-ASEAN Business Council, and a joint submission by the Foochow Coffee Restaurant & Bar Merchants Association, the Kheng Keow Coffee Merchants Restaurant and Bar-Owners Association, the Provision Shop Friendly Association and the Singapore Mini Mart Association.

The Government has evaluated that the introduction of standardised packaging is unlikely to make any material contribution to any increase in the prevalence of counterfeit cigarettes in Singapore.

Firstly, while tobacco industry-commissioned reports have been used to support the concerns that the use of counterfeit tobacco will increase,[86] independent and peer-reviewed analyses of these reports have pointed out that these reports are not independent, may not be well-conducted, and overestimate the problem. A systematic review of studies conducted on the effects of standardised packaging on behaviour relating to counterfeit tobacco products also did not find support for the idea that standardised packaging could lead to increases in trade in counterfeit cigarettes; and the conclusion was that standardised packaging was not likely to result in increased intention to use counterfeit cigarettes.[87]

Secondly, in Australia, there were no increases in reported purchases of illicit cigarettes[88] or increases in the availability of illicit cigarettes as at one year after the introduction of the plain packaging measure in Australia.[89]

Thirdly, with respect to Singapore in particular, the prevailing form of illicit tobacco in Singapore is historically that of contraband (i.e. genuine but duty-unpaid) cigarettes illegally imported from the rest of the region – not counterfeit cigarettes. Given Singapore's relatively small market size compared to the rest of the region, the Government's evaluation is that there is no compelling reason to believe that this situation is likely to change even with the introduction of standardised packaging. Law enforcement agencies such as Singapore Customs and the Singapore Police Force will continue to exercise vigilance at our borders and to tackle

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[86] KPMG. Illicit tobacco in Australia. 2013. Available at: http://www.ecta.org/IMG/pdf/kpmg_report_on_illicit_trade_australia_4_nov_2013.pdf. Further references may be found in Part 10 of Appendix 3 below.

[87] Haighton C, Taylor C, Rutter A. Standardized packaging and illicit tobacco use: A systematic review. Tobacco Prevention & Cessation. 2017; 3:13. Further references may be found in Part 10 of Appendix 3 below.

[88] The term "illicit cigarettes" includes both "counterfeit" and "contraband" (i.e. genuine, but duty-unpaid) cigarettes.

[89] Scollo M, Zacher M, Coomber K, Wakefield M. Use of illicit tobacco following introduction of the SP Proposal of tobacco products in Australia: results from a national cross-sectional survey. Tobacco Control. 2015; 24:ii76-ii81. Further references may be found in Part 10 of Appendix 3 below.

all illicit activities, including the problems of counterfeit and contraband cigarettes and any activities by smuggling syndicates.

### 5.2 Whether standardised packaging would lead to an increased prevalence of smoking

This is a concern that has been raised in response to the introduction of standardised packaging measures in other countries. The concern appears to be that standardised packaging, by eliminating all branding, advertising and promotional elements from a pack, will make it more difficult for manufacturers to differentiate their products. In order to compete, manufacturers would be forced to reduce prices to make their products more attractive. The argument is that this would result in smokers "down trading" to cheaper products and, as a consequence, smoking more cigarettes than before. Tobacco industry-commissioned reports have suggested that the introduction of standardised packaging could lead to cheaper tobacco products and greater consumption of tobacco products.[90]

This is not supported by the empirical evidence in Australia. Instead of prices falling, recommended prices for cigarettes and roll-your-own tobacco products were, respectively, 3.4% and 5.4% higher one year after the introduction of standardised packaging in Australia, exceeding inflation and occurring across all major manufacturers.[91] While there was a shift from the more expensive "premium brands" towards cheaper "value brands" among smokers after the introduction of standardised packaging in Australia,[92] prevalence of smoking decreased.[93] The Government will closely monitor the situation in Singapore if the SP Proposal is implemented. Should "down trading" occur leading to an increase in the consumption of tobacco products, one way that this occurrence may be addressed would be to raise tobacco taxes.

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[90] Padilla J. The impact of plain packaging of cigarettes in Australia: a simulation exercise. 2010. Available at: http://www.smokefree.ca/plainpackaging/documents/industryresponses/Plain_packaging_simulation_PMI_Australia_100202.pdf. See also footnote 75.

[91] Scollo M, Bayly M, Wakefield M. The advertised price of cigarette packs in retail outlets across Australia before and after the implementation of plain packaging: a repeated measures observational study. Tobacco Control. 2015; 24:ii82–ii89.

[92] See footnote 84.

[93] See footnote 79.

## 5.3 Whether implementation of standardised packaging would give rise to difficulties for retailers

The Ministry of Health received several responses from various tobacco retailer associations in response to the 2015/2016 public consultation. Some of these responses raised concerns about how standardised packaging might increase complexity and reduce business productivity by making it difficult for older and non-English-educated staff to carry on with business. The responses also claimed that the Australian experience led to retailers facing increased burden and costs, including customer frustration, inventory management delays and heavier staff workload and training requirements.

The Government notes that the experience in Australia does not appear to support such concerns. Standardised packaging does not appear to lead to difficulties in distinguishing one brand from another, or result in long-term changes in productivity. One study that recorded retailers' practices before and after introduction of standardised packaging in Australia found that there were no changes in how often retailers picked the wrong product, and retailers in fact showed a 15% decrease in time taken to select a product,[94] possibly because retailers were previously distracted by colours and poor organisation of products. In another study, there was an increase in retrieval times immediately after the introduction of standardised packaging, but this effect disappeared within two weeks.[95]

As for the concern raised that standardised packaging may make it difficult for non-English-educated staff to carry on with business, the Government notes that retailers who are not literate in English may find it more challenging to distinguish between tobacco products on the basis of brand and variant name alone. However, this group is a small and declining minority.

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[94] Carter O, Welch M, Mills B, Phan T, Chang P. Plain packaging for cigarettes improves retail transaction times. British Medical Journal. 2013; 346:f1063. Further references may be found in Part 10 of Appendix 3 below.

[95] Wakefield M, Bayly M, Scollo M. Product retrieval time in small tobacco retail outlets before and after the Australian plain packaging policy: Real-world study. Tobacco Control 2014; 23:70-6.

In light of the above, therefore, the Government is of the view that the implementation of standardised packaging in Singapore is unlikely to give rise to long-lasting difficulties on the part of retailers or result in a significant long-term adverse impact on productivity.

### 5.4 Results of a survey commissioned by a tobacco company

On 28 March 2016, the Government received a copy of the results from an in-person survey in Singapore commissioned by a tobacco company and carried out by Ipsos Singapore from 5 June 2015 to 6 July 2015[96]. The tobacco company claimed that the survey results suggested that the majority of Singaporeans did not support the introduction of standardised packaging in Singapore.

It is noted that the Ipsos survey is effectively a public opinion poll rather than one which obtains the views of those with expertise in the area of public health or undertakes a scientific study on behavioural responses. The Government's view is that a public health policy such as the SP Proposal cannot be based on public opinion alone, and significantly greater weight has to be accorded to the substantial body of international research evidence and studies related to tobacco product marketing and standardised packaging.

Further, the Government has, in conjunction with Professor Chia and Associate Professor Miller, closely reviewed the Ipsos survey questions and results. While the survey purports to sample 1,002 Singaporeans aged 18 and above nationwide, it is noted that the questions are general and often methodologically flawed. For instance, some questions conflated more than one concept into a single question, while other questions were complicated and potentially confusing. Some of the questions were also phrased in a way as to suggest answers to respondents. In light of these, the Government has been advised by Professor Chia and Associate Professor Miller that the findings reported in the Ipsos survey are likely to be overstated.

### 5.5 Whether there are alternatives to standardised packaging

[96] A copy of the Ipsos Singapore survey may be found at https://www.moh.gov.sg/proposed-tobacco-control-measures.

The Government has received submissions proposing alternative packaging designs in lieu of standardised packaging. Common features of these alternative designs, in the case of cigarette packaging, are that: (a) the front and back (i.e. the two largest surfaces) of the cigarette pack would carry a graphic health warning and be void of graphic trademarks (similar to standardised packaging); and (b) the other four sides of the cigarette pack should be allowed to carry graphic trademarks and other distinguishing marks/information.

After careful consideration, these alternative packaging designs were not included in the SP Proposal discussed above, as:

- There is no evidence that the alternative packaging designs would be as effective as the SP Proposal in meeting the Government's policy objectives.
- In contrast, the Government is aware of international studies that suggest that standardised packaging featuring large graphic health warnings are significantly more likely to promote cessation among young adult smokers, compared to fully or partially branded packaging.[97] Further studies have also shown that removing an increasing proportion of branding and design elements from tobacco packaging made packs and tobacco products increasingly less attractive and reduced associations with positive smoker attributes (for example, that the smoker is "stylish" and "trendy").[98]
- The Ang/Lee Report has advised that permitting the retention of some advertising and branding space on cigarette packs is likely to undermine the purpose of standardised packaging on four fronts – in reducing the appeal of tobacco products, in increasing the noticeability and effectiveness of health warnings, in reducing the tendency to mislead on the harmful effects of smoking arising from packaging, and in eliminating the effects of tobacco packaging as a form of advertising and promotion. In particular, as the cigarette pack is a source of mobile advertising (taking the cigarette pack out of the

[97] See footnote 53.

[98] 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 MA, Durkin SJ. Adolescents' perceptions of cigarette brand image: Does plain packaging make a difference? Journal of Adolescent Health. 2010; 46(4):385-92; and Scheffels J, Lund I. The impact of cigarette branding and plain packaging on perceptions of product appeal and risk among young adults in Norway: A between-subjects experimental survey. BMJ Open. 2013; 3(12):e003732.

pocket and placing it from one table to another in full view of others), permitting the retention of advertising and branding on the sides of the pack weakens the effect of standardised packaging in minimising the role of cigarette packs as an advertising and promotion tool.

The Government welcomes comments on its concerns and preliminary assessment set out above.

### 5.6 Intellectual property rights

The tobacco industry has raised concerns that standardised packaging will affect their intellectual property rights by compromising the rights-holders' ability to use, maintain and enforce these rights.

The Government maintains its strong commitment to intellectual property rights. Should the Government proceed with introducing standardised packaging in Singapore, we will ensure that it is consistent with Singapore's international obligations with respect to intellectual property rights.

### 5.7 International trade treaties and agreements

The tobacco industry has claimed that standardised packaging would not be consistent with Singapore's obligations under the Agreement on Trade-Related Aspects of Intellectual Property Rights and the Technical Barriers to Trade Agreement.

In addition, the tobacco industry has argued that standardised packaging would constitute an unlawful expropriation of their investments in Singapore or would otherwise breach Singapore's obligations under its free trade agreements and bilateral investment treaties.

We have carefully considered the above comments and are of the view that the SP Proposal would be consistent with Singapore's international obligations.

## PART 6: PARTICIPATION IN THE PUBLIC CONSULTATION PROCESS

### 6.1 Submission of consultation feedback

The closing date for the submission of comments and feedback is **16 March 2018**.

Comments may be submitted in electronic or hard copy, with the subject or header "Public Consultation on Proposal to Introduce Standardised Packaging of Tobacco Products in Singapore", to:

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

**Email:** Tobacco_Control@moh.gov.sg

When providing their responses, all respondents are asked to indicate their names, contact numbers and e-mail addresses, so that they may be contacted for follow-up questions or responses, if any.

The Government reserves the right to make public all or parts of any submission and disclose the identity of the source. Commenting parties may request confidentiality for any part of the submission that is believed to be proprietary, confidential or commercially sensitive. Any such information should be clearly marked and placed in a separate annex. If confidential treatment is granted, the Government will consider, but not publicly disclose, the information. If the request for confidential treatment is rejected, the information will be returned to the party that submitted it and will not be considered as part of the public consultation. As far as possible, respondents should limit any request for confidential treatment of information submitted. The Government will not accept any submission that requests confidential treatment of all, or a substantial part, of the submission.

## 6.2 Protection from commercial and other vested interests of the tobacco industry

As a Party to the FCTC, Singapore has an obligation under Article 5.3 when setting and implementing public health policies with regard to tobacco control to protect these policies from the commercial and other vested interests of the tobacco industry. The Guidelines for the implementation of Article 5.3 recommend that Parties should interact with the tobacco industry only when and to the extent strictly necessary to enable Parties to effectively regulate the tobacco industry and tobacco products. The Guidelines also recommend (as an overarching guiding principle) that Parties should, when dealing with the tobacco industry or those working to further its interests, be accountable and transparent.

To help meet this obligation, all respondents are asked to disclose whether they have any direct or indirect links to, or receive funding from, the tobacco industry.

## 6.3 Next Steps

All responses received by the closing date will be considered and factored into the Government's final decision on whether to introduce the SP Proposal in Singapore. As indicated in the last paragraph of Part 4.3 above, the Government will be seeking comments on the further study that it is commissioning in relation to non-cigarette tobacco products. A final report summarising the submissions and setting out the Government's final decision will be published thereafter.

## PART 7: QUESTIONS FOR CONSULTATION

As set out in Part 3.1, the SP Proposal is intended to operate alongside other existing and possible future tobacco control measures (such as increased taxation and public education) to contribute towards meeting the Government's obligations under the FCTC, promote public health through the reduction of the prevalence of smoking in Singapore, and thereby constitute a significant step towards Singapore becoming a tobacco-free society. Specifically, the SP Proposal aims to:

(a) Reduce the attractiveness of tobacco products;
(b) Eliminate the effects of tobacco packaging as a form of advertising and promotion;
(c) Reduce the ability of the packaging of tobacco products to mislead about the harmful effects of smoking (including on the relative harmful effects between products);
(d) Increase the noticeability and effectiveness of health warnings; and
(e) Better inform smokers and non-smokers of the risks associated with tobacco use.

Given these objectives, we would like to hear your views with regard to the SP Proposal under consideration, as outlined in Part 3.3.3. In particular, we seek your views on the following:

1. Do you agree that the SP Proposal would contribute to reducing smoking prevalence and improving public health over and above existing tobacco control measures? Please cite any relevant studies (specifically, the particular page or part of these studies) or information that support or contradict this.

2. Do you agree that the SP Proposal has the potential to achieve one or more of the five objectives set out above? Please cite any relevant studies (specifically, the particular page or part of these studies) or information that support or contradict this. (Please specify which of the above objective(s) you think the SP Proposal may achieve.)

3. Do you have any suggestion(s) to improve the SP Proposal measure under consideration as set out in Part 3.3.3 of this document? Please cite any relevant studies (specifically, the particular page or part of these studies) or information that support your suggestion(s).

4. If you do not support the proposal to introduce the SP Proposal, do you have any suggestions to regulate the shape, size and look of tobacco products and packaging to achieve the objectives set out above? Please cite any relevant studies (specifically, the particular page or part of these studies) or information that support your suggestion(s).

5. If you do not agree that the SP Proposal should be introduced, what other options do you think should be adopted to reduce smoking prevalence, and the harm it causes? Please cite any relevant studies (specifically, the particular page or part of these studies) or information that support your suggestion(s).

6. If adopted, do you agree that the SP Proposal should be applied to non-cigarette tobacco products such as cigarillos, cigars, *ang hoon*, and roll-your-own tobacco? Please cite any relevant studies (specifically, the particular page or part of these studies) or information that support or contradict this.

7. If adopted, do you think that the SP Proposal might have any incidental impact in the Singapore context other than matters addressed in answer to the above questions? If so, please elaborate on the possible incidental impact and any evidence in support of the same.

8. Please include any other comments or concerns regarding the SP Proposal that you would like the Government to take into account.

**APPENDIX 1**

Examples of standardised packaging (with mandatory graphic health warnings) from Australia and the United Kingdom are set out below.

**Australia**



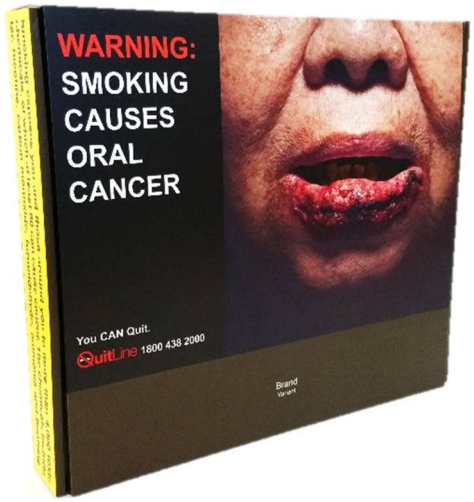

**United Kingdom**

**APPENDIX 2**

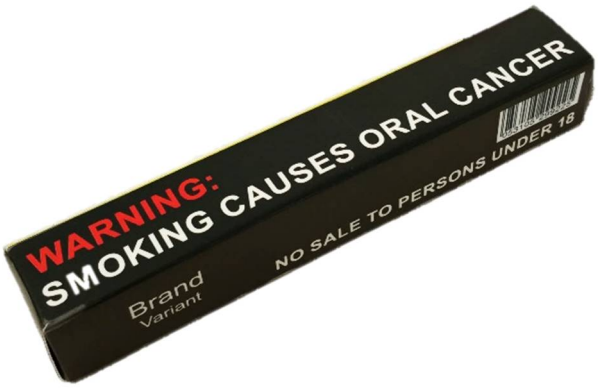
Examples of potential standardised layouts for tobacco products are set out below.

Cigarette Pack

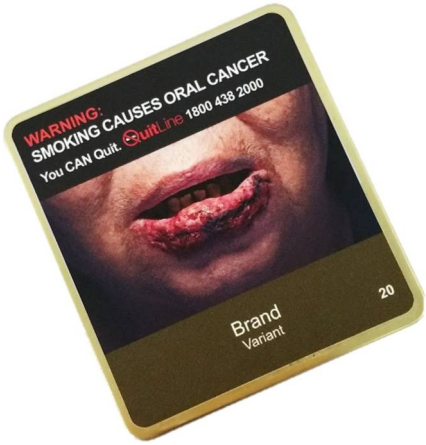

Cigar Box




Cigar Tube




Cigarillo Tin



Ang Hoon


Beedies


Pipe tobacco/Roll your Own


Images courtesy of Health Promotion Board, Singapore

These standardised layouts may potentially apply to all tobacco retail packaging and tobacco products for sale in Singapore and are adapted from requirements that are already in use in other jurisdictions that have introduced standardised packaging. More details of the proposed standardised layouts for Singapore are listed below.

**Appearance of the retail package surface**

The standardised layout may include the requirements that:

- All surfaces are in a standardised colour (e.g. drab dark brown or Pantone 448C), not embellished (unless permitted), opaque, and have a matt finish
- All retail packages carry graphic health warnings that cover not less than 75% of the total surface area of the retail package on which the warning is printed. All packaging inserts and lining are in a standardised colour
- All glue used is transparent and not scented
- All wrappers are standardised
- All tear strips are of a standardised colour
- Features designed to change after sale (e.g. heat-activated or markings that appear under fluorescent light), characteristic noises and scents are not used

**Information that can appear on the retail packaging**

The standardised layout may include the requirements that:

- No marks or trademarks can be used other than brand and variant name. Appearance of brand and variant name on retail packages is standardised and must appear in a standardised location on the packaging
- No information as to product emission yields can be displayed
- Appearance of other information markings on the retail packages is standardised

**Size and construction of the retail packages**

The standardised layout may include the requirements that:

- Retail package size, shape and materials are standardised
- Retail packages open according to a standardised format

**Appearance of tobacco products**

The standardised layout may include the requirements that:

- Cigarettes are of a standardised colour or combination of colours, and carry no markings except for the "SDPC" marking, which should be of a standardised appearance and location
- Cigar bands are of a standardised format, colour and location, and only contain information of standardised appearance as prescribed

**APPENDIX 3**

The Government has taken into consideration a wide range of available material on matters relating to the SP Proposal. The principal international and local material considered by the Government in arriving at the SP Proposal is listed here. A list of all the studies, evidence and other materials considered by the Government may be found at https://www.moh.gov.sg/proposed-tobacco-control-measures.

**Part 1: Tobacco Packaging as a Means of Promoting Tobacco Use**


Ampuero O, Vila N. Consumer perceptions of product packaging. Journal of Consumer Marketing. 2006; 23(2):100-12.

Assunta M, Chapman S. ‘‘The world’s most hostile environment’’: How the tobacco industry circumvented Singapore’s advertising ban. Tobacco Control 2004. 13(Suppl II):ii51–ii57.

Beede P, Lawson R. The effect of plain packages on the perception of cigarette health warnings. Public Health. 1992; 106(4):315-22.

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(2):97-102.

Carpenter CM, Wayne GF, Connolly GN. Designing cigarettes for women: New findings from the tobacco industry documents. Addiction. 2005; 100(6):837-51.

Centre for Tobacco Control Research. (2012). The packaging of tobacco products. Available at: https://www.cancerresearchuk.org/sites/default/files/cancer_research_uk-funded_report_on_tobacco_packaging_written_by_the_centre_for_tobacco_control_research.pdf

Chantler C. Standardised packaging of tobacco - Report of the independent review undertaken by Sir Cyril Chantler. 2014. Available at: https://www.kcl.ac.uk/health/10035-TSO-2901853-Chantler-Review-ACCESSIBLE.PDF

Cummings KM, Hyland A, Bansal MA, Giovino GA. What do Marlboro Light smokers know about low tar cigarettes? Nicotine & Tobacco Research. 2004; 6(Suppl 3):S323-32.

Cummings KM, Morley CP, Horan JK, Steger C, Leavell NR. Marketing to America's youth: Evidence from corporate documents. Tobacco Control. 2002; 11(Suppl 1):i5-i17.

Dewe M, Ogden J, Coyle A. The cigarette box as an advertising vehicle in the United Kingdom: A case for plain packaging. Journal of Health Psychology. 2013; 20(7)954-62.

DiFranza JR, Eddy JJ, Brown LF, Ryan JL, Bogojavlensky A. Tobacco acquisition and cigarette brand selection among the youth. Tobacco Control. 1994; 3(4):334-8.

DiFranza JR, Wellman RJ, Sargent JD, Weitzman M, Hipple BJ, Winickoff JP, Tobacco Consortium, Center for Child Health Research of the American Academy of Pediatrics. Tobacco promotion and the initiation of tobacco use: Assessing the evidence for causality. Pediatrics. 2006; 117(6):e1237-48.

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Ford A, Moodie C, Hastings G. The role of packaging for consumer products: Understanding the move towards 'plain' tobacco packaging. Addiction Research & Theory. 2012; 20(4):339-47.

Ford A, Moodie C, Mackintosh AM, Hastings G. Adolescent perceptions of cigarette appearance. European Journal of Public Health. 2014; 24(3):464-8.

Freeman D, Brucks M, Wallendorf M, Boland W. Youths' understandings of cigarette advertisements. Addictive Behaviors. 2009; 34(1):36-42.

Gendall P, Hoek J, Edwards R, McCool J. A cross-sectional analysis of how young adults perceive tobacco brands: Implications for FCTC signatories. BMC Public Health. 2012; 12:796.

Goldberg ME, Kindra G, Lefebvre J, Liefeld J, Madill-Marshall J, Martohardjono N, Vredenburg H. When Packages Can't Speak: Possible impacts of plain and generic packaging of tobacco products. Expert Panel Report Prepared for Health Canada. Ottawa: Health Canada. Visual image experiment. 1995. Available: http://legacy.library.ucsf.edu/tid/rce50d00

Grant IC, Hassan L, Hastings G, MacKintosh AM, Eadie D. The influence of branding on adolescent smoking behaviour: Exploring the mediating role of image and attitudes. International Journal of Nonprofit and Voluntary Sector Marketing. 2008; 13(3):275-85.

Greenland SJ. Cigarette brand variant portfolio strategy and the use of colour in a darkening market. Tobacco Control. 2015; 24:e65-e71.

Hanewinkel R, Isensee B, Sargent JD, Morgenstern M. Cigarette advertising and adolescent smoking. American Journal of Preventive Medicine. 2010; 38(4):359-66.

Journal of the American Dental Association. Cigarette packaging appeals to teens. 1995; 126:1604.

Lovato C, Watts A, Stead LF. Impact of tobacco advertising and promotion on increasing adolescent smoking behaviours. Cochrane Database of Systematic Reviews. 2011; 5(10):CD003439.

MacFadyen L, Hastings G, MacKintosh AM. Cross sectional study of young people's awareness of and involvement with tobacco marketing. British Medical Journal. 2001; 322(7285):513-7.

Moodie C, Hastings GB. Making the pack the hero, tobacco industry response to marketing restrictions in the UK: Findings from a long-term audit. International Journal of Mental Health and Addiction. 2011; 9(1):24-38.

Morgenstern M, Sargent JD, Isensee B, Hanewinkel R. From never to daily smoking in 30 months: The predictive value of tobacco and non-tobacco advertising exposure. BMJ Open. 2013; 3:e002907.

Pierce J, Distefan J, Jackson C, White MM, Gilpin EA. Does tobacco marketing undermine the influence of recommended parenting in discouraging adolescents from smoking? American Journal of Preventive Medicine. 2002; 23(2):73-81.

Pierce J, Gilpin E, Burns DM, Whalen E, Rosbrook B, Shopland D, Johnson M. Does tobacco advertising target young people to start smoking? Evidence from California. Journal of the American Medical Association. 1991; 266(22):3154-8.

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