

## **APPENDIX D**

### **Literature Review on the Impact of Plain Packaging on Women**

**Genevieve Sansone  
University of Waterloo**

**November 30, 2018**

Prepared for the Bill and Melinda Gates Foundation



## **Acknowledgements**

This report was prepared for the Bill and Melinda Gates Foundation by a team of collaborators at the University of Waterloo: Dr. Genevieve Sansone (lead author), Lorraine Craig (editing and review), and Dr. Geoffrey T. Fong (editing and review).

## Literature Review: Impact of Plain Packaging on Women

### Summary

1. Tobacco packaging remains a primary source of marketing for tobacco companies. Female smokers are specifically targeted through packaging design, colors, and branding elements that are used to increase the appeal of tobacco products among both youth and adult women.
2. Plain packaging is recommended by the WHO FCTC as an effective strategy for reducing the appeal of tobacco products and reducing the ability of the tobacco industry to use tobacco packages to attract and mislead female smokers.
3. Evidence from experimental studies shows that plain packs are less appealing to young females compared to standard and female-oriented branding and may motivate cessation-related behaviors.
4. Australia was the first country to introduce plain packaging in 2012. Evidence shows that plain packaging in Australia, along with larger health warnings, has been effective overall in reducing the appeal of tobacco packages, enhancing the effectiveness of the health warnings, and motivating quitting. Preliminary evidence from France also suggests that plain packaging has had a positive impact. However, few evaluation studies of plain packaging have examined gender differences.
5. Evidence also shows that support for plain packaging has grown since the law was implemented in Australia, and that both male and female smokers are equally supportive of the law.

### Background

Package design is a powerful tool for marketing and promotion, and tobacco packages are designed and created to communicate positive appealing characteristics to consumers. For tobacco products, as with many other consumer products, the product package is a critically important route through which brand identity is communicated from the company to consumers, and from the consumer to potential future consumers.

In recent years, a number of countries have placed increasingly greater restrictions and prohibitions on tobacco advertising, promotion, and sponsorship (TAPS) on a broader range of domains—a trend that has been accelerated by Article 13 of the WHO FCTC.[1]

Consequently, in countries where other forms of tobacco advertising have already been restricted or banned, packaging has become an even more important marketing tool for tobacco companies.[2,3]

Women in particular can be targeted through branding, color, and design elements on tobacco packages. For example, descriptors such as ‘slims’ may be added to female-oriented packs to target weight concerns among women, and lighter, feminine colors may be used to convey qualities such as cleanliness, purity, femininity, and lower harm.[2,4] Packaging can also be used to convey brand product characteristics such as style and glamor in order to increase the appeal of smoking for women.[3] Examples of female-oriented designs include slim packs and “purse packs” of the Virginia Slims brand introduced by Philip Morris, which are small, narrow packs resembling cosmetic packages designed to fit easily into purses.

In order to reduce the appeal of tobacco packages, Articles 11 and 13 of the WHO FCTC recommend that Parties implement plain packaging (known as “standardized packaging” in some countries), which prohibits logos, colors, and images from appearing on packs, allowing only the brand name and descriptors in a standardized font. All packages must also have a standardized size, shape, and background color. Besides reducing appeal, plain packaging is intended to reduce the ability of the tobacco industry to use packaging to mislead consumers, and to enhance the effectiveness of health warnings on packs.[5]

There is strong and growing evidence to support the effectiveness of plain packaging. Five major systematic reviews conducted thus far have reached the same conclusion that plain packaging contributes to its objectives.[6–10] The evidence is strongest for reducing the appeal of tobacco products and enhancing the effectiveness of health warnings.

As of October 2018, plain packaging has been implemented at the retail level in six countries (Australia, France, United Kingdom, New Zealand, Norway, and Ireland), at the manufacturer level in one country (Hungary<sup>1</sup>), is forthcoming in Uruguay, Slovenia and Canada<sup>2</sup>, and is under consideration in at least 15 other jurisdictions (See Table 1 for full details).[11,12]

**Table 1: Global summary of plain packaging implementation dates**

Sources: The Canadian Cancer Society[11] and Campaign for Tobacco-Free Kids[12]

Country	Manufacturer Level	Retail Level
Australia	Oct. 1, 2012	Dec. 1, 2012
France	May 20, 2016	Jan. 1, 2017
United Kingdom	May 20, 2016	May 20, 2017
Norway	July 1, 2017	July 1, 2018
Ireland	Sept. 30, 2017	Sept. 30, 2018
New Zealand	Mar. 14, 2018	June 6, 2018
Hungary*	May 20, 2018	May 20, 2019
Uruguay	Feb. 6, 2019	Feb. 6, 2019
Slovenia	Jan. 1, 2020	Jan. 1, 2020

\*In Hungary, new brands introduced to the market after August 19, 2016 must be in plain packs with some already on sale.

### Evidence on the impact of plain packaging

Prior to the first introduction of plain packaging at the national level in Australia in December 2012, most of the evidence to support the development and implementation of plain packaging legislation largely came from experimental studies and most studies were conducted in high-income countries (HICs). These studies have demonstrated the significant appeal of branded cigarette packs in comparison to plain packages, especially among young women:

- A study in Canada asked young women (aged 18-25) to rate various cigarettes packages – some female-oriented, some standard Canadian brands, and some plain packages – on measures such as appeal, perceived taste, perceived health risk, and

<sup>1</sup> Note that in Hungary, plain packaging is already required for any new brands introduced to the market after August 2016 and took effect at the manufacturer level on May 20, 2018.

<sup>2</sup> In Canada, Bill S-5 mandating plain packaging passed Parliament on May 16, 2017 and was adopted in May 2018. The federal government will release new regulations on cigarette packaging later in 2018.

associated smoker traits.[2] The findings showed that plain packs were rated as least appealing, lowest in perceived taste, and were the least likely to be associated with positive smoker traits, while the female-oriented packs that included branding elements were rated as most appealing, highest in taste, and had higher positive trait scores. There were few differences in perceived health risk. These findings not only show the appeal of female branding, but also the effectiveness of removing branding and design elements through plain packages as a means of reducing the ability of the tobacco industry to use packaging to appeal to female consumers.

- An online study among Brazilian women aged 16-25 in which participants rated standard branded packages as well as plain packs with either just the branding or both branding and descriptors (such as flavors) removed found similar results.[3] Branded packs were rated as significantly more appealing, better tasting, smoother on the throat, and were associated with more positive smoker attributes compared to plain packs. Branded packs with female-oriented colors and designs, including slim shaped packages, were also rated more favorably than non-female-oriented branded packs.
- Naturalistic studies with young female smokers (aged 18-35) in Scotland measured their perceptions and experiences of plain packs after using mock-up plain packs for a week. In both studies, participants reported negative perceptions and feelings towards the plain packs, and engaged in behaviors related to quitting, such as avoiding or hiding the packs, forgoing cigarettes, and thinking about quitting.[13,14]
- A recent systematic review of plain packaging studies from low- and middle-income countries (LMICs), upper-middle income countries, and low-income settings of HICs demonstrated the lack of research from low-income settings overall.[15] Only four studies were identified for the review, all of which were based on perceptions of plain packaging; however, the existing research suggests that plain packaging can be effective in low-income settings, especially for reducing pack appeal.

### **Evaluation of existing plain packaging laws in Australia and France**

Australia was the first country to implement plain packaging in December 2012, along with larger graphic health warnings (increased from 30% to 75% of the front of packs; remained at 90% of the back of packs). Evaluations of the impact of plain packaging in Australia have found that it has been effective in achieving the aims of reducing the appeal of packs and increasing the effectiveness of warning labels. Overall prevalence of smoking in Australia has also declined since the implementation of plain packaging in 2012.[16] However, there are no published studies that have specifically examined gender differences.

- Evidence from the first six months of implementation of plain packaging found a positive initial impact by reducing the appeal of packs and increasing the effectiveness of health warnings. [17] Surveys of adult smokers conducted 3 months and 6 months after the implementation of the new legislation found an increase in negative perceptions of packs (i.e. reduced attractiveness) as well as stronger cognitive, emotional, and avoidant responses to the graphic warnings. While the analyses controlled for gender, specific differences between males and females were not reported.
- A longitudinal survey of Australian smokers conducted in the year before and the year after plain packaging was implemented also found early evidence for reduced appeal of the new plain packs with larger warnings – smokers disliked their packs more and perceived lower value, quality, and satisfaction from brands in the post-implementation

survey compared to the 6 month baseline survey.[18] The impact of the health warnings was also greater in the post-implementation period – smokers noticed warnings more, avoided the warnings more, and were more motivated to quit following the introduction of plain packaging. There was no impact of gender on the association between plain packaging and the outcome measures of appeal and warning effectiveness.

- A cohort survey of Australian smokers followed up over the period of transition and first year of implementation of plain packaging found a positive short-term impact on quitting-related cognitions and behaviors.[19] The implementation of plain packaging combined with the larger pictorial warnings was associated with increases in intentions to quit, quit attempts, and concealment of packs. Analyses were adjusted for gender but differences between males and females were not reported.
- A longitudinal study conducted in three waves from 2011 to 2014 found that brand awareness and identification decreased among smokers after the implementation of plain packaging in Australia.[20] These findings suggest that removing branding from packs, combined with increasing the size of health warnings, makes it more difficult for smokers to differentiate between brands and to create associations or identities with particular brands. While males were lower in brand identification, males and females did not differ in the effect of plain packaging on brand awareness or brand identification.
- An evaluation of the impact of plain packaging on product choice, prices paid, and consumption found an increase in smokers using value brands, but no change in consumption following implementation of plain packaging.[21] This finding is important as it does not support the tobacco industry's argument that plain packaging would lead to increases in consumption as a result of greater price competition among companies and a shift to more low-cost cigarettes and illicit tobacco. However, gender differences were not reported.

Evidence also shows increases in the level of support for plain packaging among smokers and non-smokers following implementation of the law in Australia:

- Data from ITC Australia Surveys conducted from 2007 to 2012 (before and after plain packaging) found a significant increase overall in support for plain packaging after implementation (from 28% to 49%).[22] While males were more likely to support plain packaging prior to the law, gender was not a significant predictor of support after implementation, suggesting that both male and female smokers were equally supportive of the new law. Furthermore, smokers who were more supportive of plain packaging were more likely to intend to quit and to make a quit attempt, suggesting that plain packaging (as well as the new warnings that were implemented) may help motivate cessation.
- Cross-sectional surveys conducted in the state of Victoria before and after plain packaging legislation found increases in support for both plain packaging and the new graphic health warnings among never smokers in 2012 and 2013 compared to the baseline survey in 2011.[23] Support among current and former smokers remained consistent over time, although disapproval of both plain packaging and the new health warnings decreased in all groups. Gender differences were not examined.

While the evidence thus far shows a positive initial impact of plain packaging in Australia, it is not possible to disentangle the effects of plain packaging alone from the effects of the larger pictorial health warnings that were implemented at the same time. Further research from

longitudinal studies will be needed in order to determine the long-term impact of plain packaging on cessation and smoking prevalence among males and females in Australia, as well as evaluation studies from other countries that have recently implemented plain packaging laws, such as France and United Kingdom.

In France, plain packaging was implemented at the manufacturer level on May 20, 2016 and became effective at the retail level on January 1, 2017. Preliminary evidence indicates that plain packaging may have helped to reduce smoking. The 2017 Health Barometer, a telephone survey of adults (aged 18-75) in France conducted between January-July 2017, found a significant and unprecedented decrease in smoking prevalence from 2016 to 2017, after a number of tobacco control measures were implemented, including plain packaging along with reimbursement of smoking cessation, anti-tobacco campaigns, and a ban on advertising at point of sale. [24]

- Overall adult smoking prevalence in 2017 was 31.9% (35.2% among males and 28.7% among females), a decrease of 3.2 percentage points from 2016. This decrease translates to 1.4 million fewer smokers in France.
- Daily smoking prevalence decreased from 29.4% in 2016 to 26.9% in 2017 (29.8% among males and 24.2% among females).
- Overall and daily smoking prevalence significantly decreased among both males and females.
- Daily smoking prevalence among young men aged 18-24 showed the largest decrease – from 44.2% in 2016 to 35.3% in 2017.

## References

- 1 Hiilamo H, Glantz S. FCTC followed by accelerated implementation of tobacco advertising bans. *Tob Control* 2017;**26**:428–33. doi:10.1136/tobaccocontrol-2016-053007
- 2 Doxey J, Hammond D. Deadly in pink: the impact of cigarette packaging among young women. *Tob Control* 2011;**20**:353–60. doi:10.1136/tc.2010.038315
- 3 White CM, Hammond D, Thrasher JF, *et al*. The potential impact of plain packaging of cigarette products among Brazilian young women: an experimental study. *BMC Public Health* 2012;**12**:737. doi:10.1186/1471-2458-12-737
- 4 Hammond D. Evidence Review. In: *Tobacco labelling and Packaging Toolkit*. 2009.
- 5 Australian Government. Tobacco Plain Packaging Act 2011. No 148, 2011 as amended. Australian Government 2013.
- 6 Victoria QVCC. Plain packaging of tobacco products: a review of the evidence. 2011.
- 7 Moodie C, Stead M, Bauld L, *et al*. Plain Tobacco Packaging: A Systematic Review. London: 2012.
- 8 Hammond D. Standardized Packaging of Tobacco Products: Evidence Review. 2014.
- 9 McNeill A, Gravelly S, Hitchman SC, *et al*. Tobacco packaging design for reducing tobacco use. *Cochrane Database Syst Rev* Published Online First: 27 April 2017. doi:10.1002/14651858.CD011244.pub2
- 10 Chantler C. Standardised packaging of tobacco: Report of the independent review undertaken by Sir Cyril Chantler. 2014.
- 11 Canadian Cancer Society. Cigarette Package Health Warnings: International Status Report, Sixth Edition. 2018.
- 12 Campaign for Tobacco-Free Kids. Plain or Standardized Tobacco Packaging: International Developments - Updated December 2017. 2017. [https://www.tobaccofreekids.org/assets/microsites/plainpackaging/International-Developments-Dec-2017-Final\\_En.pdf](https://www.tobaccofreekids.org/assets/microsites/plainpackaging/International-Developments-Dec-2017-Final_En.pdf) (accessed 14 May 2018).
- 13 Moodie CS, Mackintosh AM. Young adult women smokers' response to using plain cigarette packaging: a naturalistic approach. *BMJ Open* 2013;**3**:e002402. doi:10.1136/bmjopen-2012-002402
- 14 Moodie C, Bauld L, Ford A, *et al*. Young women smokers' response to using plain cigarette packaging: qualitative findings from a naturalistic study. *BMC Public Health* 2014;**14**:812. doi:10.1186/1471-2458-14-812
- 15 Hughes N, Arora M, Grills N. Perceptions and impact of plain packaging of tobacco products in low and middle income countries, middle to upper income countries and low-income settings in high-income countries: a systematic review of the literature. *BMJ Open* 2016;**6**:e010391. doi:10.1136/bmjopen-2015-010391
- 16 Australian Government Department of Health. Post-Implementation Review: Tobacco Plain Packaging. 2016.
- 17 Dunlop SM, Dobbins T, Young JM, *et al*. Impact of Australia's introduction of tobacco plain packs on adult smokers' pack-related perceptions and responses: results from a

- continuous tracking survey. *BMJ Open* 2014;**4**:e005836. doi:10.1136/bmjopen-2014-005836
- 18 Wakefield M, Coomber K, Zacher M, *et al.* Australian adult smokers' responses to plain packaging with larger graphic health warnings 1 year after implementation: results from a national cross-sectional tracking survey. *Tob Control* 2015;**24**:ii17–25. doi:10.1136/tobaccocontrol-2014-052050
- 19 Durkin S, Brennan E, Coomber K, *et al.* Short-term changes in quitting-related cognitions and behaviours after the implementation of plain packaging with larger health warnings: findings from a national cohort study with Australian adult smokers. *Tob Control* 2015;**24**:ii26–32. doi:10.1136/tobaccocontrol-2014-052058
- 20 Balmford J, Borland R, Yong H-H. Impact of the introduction of standardised packaging on smokers' brand awareness and identification in Australia. *Drug Alcohol Rev* Published Online First: 15 September 2015. doi:10.1111/dar.12331
- 21 Scollo M, Zacher M, Coomber K, *et al.* 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. *Tob Control* 2015;**24**:ii66–75. doi:10.1136/tobaccocontrol-2014-052071
- 22 Swift E, Borland R, Cummings KM, *et al.* Australian smokers' support for plain or standardised packs before and after implementation: findings from the ITC Four Country Survey. *Tob Control* 2015;**24**:616–21. doi:10.1136/tobaccocontrol-2014-051880
- 23 Hayes L, Wakefield MA, Bain E. Change in public support for the introduction of plain packaging and new, enlarged graphic health warnings in the Australian state of Victoria, 2011-2013. *Tob Control* 2017;**26**:627–8. doi:10.1136/tobaccocontrol-2016-053238
- 24 Pasquereau A, Andler R, Guignard R, *et al.* Tobacco consumption in France: Preliminary results from the 2017 Health Barometer. *Bull Epidemiol Hebd* 2018;**14-15**:265–73.