


Institution: University of Stirling		
Unit of Assessment: 3. Allied Health Professions, Dentistry, Nursing and Pharmacy		
Title of case study: Informing the adoption of standardised tobacco packaging in the UK		
Period when the underpinning research was undertaken: 2011-2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name:	Role:	Period employed by submitting HEI:
Crawford Moodie	Senior Research Fellow	2007-Present
Anne Marie Mackintosh	Senior Researcher	2004-Present
Allison Ford	Research Fellow	2010-Present
Martine Stead	Deputy Director (ISMH)	2004-Present
Kathryn Angus	Research Officer	2004-Present
Gerard Hastings	Emeritus Professor	2004-Present
Nathan Critchlow	Research Officer	2016-Present
Linda Bauld	Director (ISMH)	2011-12/2018
Richard Purves	Research Fellow	2010-Present
Douglas Eadie	Research Fellow	2004-Present
Jennifer Mckell	Research Fellow	2010-Present
Period when the claimed impact occurred: August 2013-2020		
Is this case study continued from a case study submitted in 2014? No		
<p>1. Summary of the impact</p> <p>Tobacco use is the single greatest cause of preventable illness and death in the UK. The work of the Institute for Social Marketing and Health (ISMH) was pivotal to the UK governments' decision to legislate 'standardised packaging' (Figure 1) for tobacco products, a major population-level policy that was fully-implemented in May 2017. The policy, the '<i>Standardised Packaging of Tobacco Products Regulations</i>', is intended to encourage smokers to quit and discourage non-smokers, particularly young people, from taking up smoking. The Department of Health estimates a net benefit to government of GBP25,000,000,000 ten years post-implementation. In addition, our work in creating a rationale for standardised (or plain) packaging, building an evidence base, and systematically reviewing the evidence, has and continues to contribute to standardised packaging debate and legislation internationally.</p>		
		
<p>Figure 1. Examples of standardised tobacco packs</p>		
<p>2. Underpinning research</p> <p>ISMH is widely recognised as a world-leading academic institution on tobacco packaging, with more than 80 publications and reports on the topic. The work conducted by ISMH that directly contributed to the UK governments' decision to legislate standardised packaging comprised:</p> <p>(1) A series of key studies demonstrating the role of tobacco packaging as a marketing tool [R1, G6, G8] and the impact of tobacco packaging on smoking behaviour [R2]. Specifically, the findings [in R2] reported that standardised packaging was, compared with fully-branded packaging, associated with lower ratings of enjoyment and smoking satisfaction, forgoing cigarettes, smoking less around others, and increased thoughts of cessation [G7, G10].</p> <p>(2) A systematic review of the evidence on standardised tobacco packaging [G9] to inform the UK Government's public consultation on standardised packaging [R3]. The Department of Health, through the 'Public Health Research Consortium', of which the University of Stirling is a partner, commissioned a systematic review of the evidence. This systematic review was led and written by ISMH, with collaborators from the Universities of Nottingham and London helping with the analysis. It examined evidence for the three potential public health benefits of standardised packaging identified by the World Health Organisation's Framework Convention on Tobacco Control: i) reduced attractiveness of tobacco products; ii) increased salience of the warnings on packaging; and iii) reduced likelihood that consumers would be misled about product harm as a consequence of pack design. The findings of the review [R3] formed the basis of the public consultation in mid-</p>		

2012, for which there were more than 668,000 responses (see <https://bit.ly/2Vst447> 12th July, 2013, Column 679). The UK Government amended the Children and Families Bill in November 2013 to enable the introduction of standardised packaging and set up an independent review by Sir Cyril Chantler, who stated that *'The Stirling Review constitutes the most extensive and authoritative piece of work on the issue of standardised packaging yet undertaken'* [S2].

(3) An **update review** of the evidence on standardised packaging in 2013 [R4], with the results consistent with those in the systematic review, thus strengthening the evidence base for standardised packaging. The update review followed the Scottish Government's announcement that it would introduce standardised packaging (September 2013), while the UK Secretary of State for Health said that the decision would be postponed until further evidence emerged from Australia. The update review included several additional studies from ISMH, including one that showed that fully-branded packaging increased youth susceptibility to smoke [R5, G6], which was cited in the House of Commons by the Shadow Health Secretary in support of standardised packaging [S1].

ISMH is the only team in the UK exploring how consumers, retailers and tobacco companies have responded to standardised packaging [G1, G4, G5, G6]. Just as ISMH **underpinned** the introduction of standardised packaging, by creating a rationale, helping build a strong evidence base, and reviewing the evidence, our continued monitoring of the market and evaluation of this policy is crucial for the UK Government and regulators elsewhere. Our two synthesis reviews of the evidence in the UK post-standardised packaging, both commissioned by the Department of Health and Social Care, will feed directly into their Post Implementation Review in 2021 [R6]. Of the 23 publications identified in these two reviews, 11 were from ISMH [G2, G3].

3. References to the research (ISMH authors in **bold** text)

R1: Moodie C, Angus K, Ford A (2014). The importance of cigarette packaging in a 'dark' market: The 'Silk Cut' experience. *Tobacco Control*, 23: 274-278. DOI: [10.1136/tobaccocontrol-2012-050681](https://doi.org/10.1136/tobaccocontrol-2012-050681)

R2: Moodie C, Mackintosh AM (2013). Young adult women smokers' perceptions of using plain cigarette packaging: A naturalistic approach. *British Medical Journal Open*, 3: e002402. DOI: [10.1136/bmjopen-2012-002402](https://doi.org/10.1136/bmjopen-2012-002402)

R3: Moodie C, Stead M, Bauld L, McNeill A, **Angus K**, Hinds K, Kwan I, Thomas J, **Hastings G**, O'Mara-Eves A (2012). Plain tobacco packaging: A systematic review. London: PHRC. Available at: <http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=3327>

R4: Moodie C, Angus K, Bauld L, Stead M (2013). Plain tobacco packaging research: An update. Stirling, Scotland: Centre for Tobacco Control Research, University of Stirling. Available at: <http://hdl.handle.net/1893/24418>

R5: Ford A, MacKintosh AM, Moodie C, Richardson S, **Hastings G** (2013). Cigarette pack design and adolescent smoking susceptibility: a cross-sectional survey. *BMJ Open*, 3: e003282. DOI: [10.1136/bmjopen-2013-003282](https://doi.org/10.1136/bmjopen-2013-003282)

R6: Moodie C, Angus K, Stead M (2019). A systematic review of research exploring the response of consumers, retailers and tobacco companies to standardised packaging in the United Kingdom. Stirling, Scotland: Centre for Tobacco Control Research, University of Stirling. Available at: <http://hdl.handle.net/1893/30357>

Grants supporting research on standardised packaging:

- G1 PI: Crawford Moodie. 'What is the longer-term response of smokers and ex-smokers to standardised packaging and how does standardised packaging impact on health inequalities?' Department of Health and Social Care. April 2019–January 2021. GBP198,626.
- G2 PIs: Crawford Moodie/Martine Stead. 'A synthesis review of research exploring the response of consumers, the tobacco industry and retailers to standardised packaging in the UK.' Department of Health and Social Care. May 2020–December 2020. GBP57,000.
- G3 PIs: Crawford Moodie/Martine Stead. 'What are the impacts of standardised tobacco packaging? A synthesis of standardised tobacco packaging evaluation research in the UK.' Department of Health and Social Care. June 2018–March 2019. GBP 56996.

- G4 PI: Martine Stead. 'Retail audit to evaluate standardised packaging and its impact in the UK.' Cancer Research UK. December 2015–October 2018. GBP63,993.
- G5 PI: Anne Marie Mackintosh. 'Centre for Tobacco Control Research'. Cancer Research UK. October 2015–September 2018. GBP670,886.
- G6 PI: Crawford Moodie. 'The Adult Tobacco Policy Survey'. British Heart Foundation and Cancer Research UK. November 2014–November 2017. GBP123,305.
- G7 PI: Gerard Hastings. 'Centre for Tobacco Control Research'. Cancer Research UK. October 2012–September 2015. GBP631,227.
- G8 PI: Crawford Moodie. 'Exploring the impact that using plain cigarette packaging in real world settings has upon young adult female smokers: An ecological study'. Cancer Research UK. July 2011–March 2012. GBP56,198.
- G9 PI: Crawford Moodie. 'Plain and standardised tobacco packaging'. Cancer Research UK. June 2011–March 2012. GBP20,962.
- G10 PI: Crawford Moodie. 'Plain tobacco packaging: A systematic review'. Department of Health. May 2011–October 2011. GBP126,613.
- G11 PI: Crawford Moodie. 'Piloting the use of plain packs in a real life environment: Experiences of young adult smokers'. Cancer Research UK. January 2010–September 2010. GBP40,466.

4. Details of the impact

The work of ISMH has helped create multiple impacts, including the introduction of standardised packaging in the UK, resultant benefits to the UK economy, and informing policy adoption internationally:

1. The direct impact of ISMH in informing the policy in the UK

ISMH helped build a strong case for the introduction of standardised packaging in the UK by creating a rationale, contributing substantially to the evidence base, and rigorously reviewing the evidence. The work of ISMH on standardised packaging (articles and reports outlining the importance of packaging as a marketing tool, primary research, evidence reviews) is **directly linked** to the decision to introduce this policy, with evidence from citations in government reports, mentions in parliamentary debates, expert testimony, and frequent mention of 'the Stirling review' [R3] in the report from Sir Cyril Chantler [S2], who was asked by the UK Government to undertake a review to determine whether standardised packaging would be beneficial to the public good.

'To inform responses to the consultation and subsequent policy making, the Department of Health (DoH) commissioned a systematic review of the evidence on plain tobacco packaging. This review was undertaken by academics at the University of Stirling, University of Nottingham, the Institute of Education (University of London), and the UK Centre for Tobacco Control Studies. It was published alongside the consultation document.' [S5, p.14]

'The research done by Stirling University's public health research consortium shows that standardised packaging is less attractive to potential consumers. That is good news because it means that if we have standardised packaging, smoking will be less attractive to young people and children. The reviewers looked at 17 further studies, so there is no lack of evidence. There is plenty of evidence, and the evidence in favour of standardised packaging is very strong.' [S5, p.33]

Chantler critically reviewed our work in two ways. Firstly, at his request, ISMH staff (**Moodie, Angus, Bauld**) travelled to London (January 2014) to explain the role of fully-branded tobacco packaging and discuss the evidence on standardised packaging. Secondly, he hired independent assessors to examine our reviews: *'I commissioned two specific pieces of independent analysis on the qualitative and quantitative studies in the Stirling Review (and the subsequent Research Update) using Critical Appraisal Skills Programme assessment tools. These were undertaken by academics at Southampton University and Kings College London respectively'* [S2, p.12]. One of the independent assessors, Professor Pope from Southampton University, concluded **'The Stirling Review is a high quality systematic review which includes appropriate Narrative Synthesis of qualitative and mixed methods studies'** [S2, p.56]. Chantler noted that,

'I am satisfied that the methods employed by the Stirling Review, such as the search protocol, were appropriate, and as close as could be achieved to a Cochrane standard'

given the particular circumstances and nature of the problem being considered. [S2, p.26] and that *'The Stirling Review constitutes the most extensive and authoritative piece of work on the issue of standardised packaging yet undertaken.'* [S2, p.5]

The Chantler review concluded *'that standardised packaging is very likely to contribute to a modest but important reduction in smoking'* [S2]. On 26 June 2014, the consultation on the introduction of regulations for standardised packaging was published, and draft regulations sent to the EU for scrutiny in August 2014. On 11 March 2015, MPs voted in favour of 'The Standardised Packaging of Tobacco Products Regulations' (367 vs 113).

Acknowledging ISMH's leadership in conducting research that directly led to standardised packaging in the UK, Professor Linda Bauld (Director of ISMH until December 2018) received the European Network for Smoking Prevention award from the European Respiratory Society in May 2016, when she spoke in the European Parliament.

2. ISMH research informing high-profile High Court rulings

The work of ISMH informed the judgement against tobacco companies in the High Court of Justice [S3]. On 22 May 2015, Philip Morris International and British American Tobacco filed separate lawsuits challenging the enactment of the UK law. On 19 May 2016, a day before standardised packaging was due to come into force, the UK High Court ruled that the legislation could proceed, frequently mentioning the evidence reviews conducted by Stirling, and the fact that a greater proportion of studies in the update review were in the UK - several of these were from ISMH.

'A Research Update produced independently by researchers at the University of Stirling, and by essentially the same team, in September 2013 looked at 17 further published studies and concluded that in sum this added weight to the earlier findings... Notably, a greater proportion of the studies featured in the Research Update were UK-based than in the 2011 review' (p.38). **'Sir Cyril Chantler endorsed the findings of the Stirling Review'** (p.38). *'The Secretary of State points out that the Chantler Review represented a form of peer review of the conclusions of the Stirling review which itself was a peer review of the extant material in the public domain.'* [S3, p.43]

Tobacco industry submissions to the public consultation included hundreds of pages critiquing the systematic review. A team at the University of Bath conducted an independent analysis of submissions from the four largest transnational tobacco companies (TTCs), comparing the relevance and quality of evidence cited by them with the evidence in the ISMH systematic review. This analysis [S4] found *'Comparison of TTC and [the Stirling] systematic review evidence on standardised packaging showed that the industry evidence was of significantly lower quality'* [S4, p.1].

3. Impact on the economy

The Department of Health Impact Assessment (No. 3080) on the 'Standardised Packaging of Tobacco Products Regulations' stated that it is worth an estimated GBP25,000,000,000 [S6]:

'The gross gain of standardised packaging (that could be valued) before considering costs or unquantified impacts is assessed as £30bn. The gross costs of standardised packaging (that could be valued) are assessed as £5.2bn. This gives a net gain of around £25bn.' [S6, p.13]

4. ISMH research informing international policy

Our work has not just helped create an evidence base within the UK, but also elsewhere, with members of ISMH involved in studies exploring consumer perceptions of standardised packaging in France, Spain, Turkey, India and Australia. The work of ISMH has also been cited in other countries' consultations, discussions and reports on standardised packaging, as shown below:

(a) The New Zealand Parliament passed plain packaging legislation in September 2016, with plain packaging enforced at the manufacturer level in March 2018. Research conducted by Stirling was cited in the consultation document in 2012 [S7].

'New Zealand has assessed the international evidence on the efficacy of plain packaging... and has drawn its own conclusions on the effectiveness of plain packaging from this evidence. The UK systematic review is now the most thorough and up-to-date summary available of the international research evidence base for plain packaging.' [S7, p.18]

(b) In **Norway**, plain packaging legislation was passed in December 2016 and enforced at the manufacturer level in July 2017. Research conducted by Stirling was cited by the Norwegian Ministry of Health and Care Services in their consultation in 2015 [S8]:

'Major reviews and reports carried out in Europe include the following:

- *Moodie et al (2011), Plain Tobacco Packaging: A systematic Review, University of Stirling.*
- *Moodie et al (2013), Plain Tobacco Packaging Research: An Update, University of Stirling.'* [S8, p.23]

(c) In **Canada**, plain packaging legislation was passed in May 2018 and enforced at the manufacturer level in November 2019. Research by Stirling was cited in Health Canada's consultation in 2016 [S9]:

'Numerous studies have suggested that plain and standardized packaging requirements reduce the appeal of tobacco packages and the products they contain, particularly among young people. For example: A 2012 systematic review by the University of Stirling, in Scotland, identified 37 published studies demonstrating that plain and standardized tobacco packages were consistently less appealing than branded packages on features such as attractiveness, projected personality attributes (e.g. "cool" and "popular"), and even the quality of the smoking experience.' [S9, p.5]

Within the consultation document, a quarter of all references included as supporting evidence of standardised packaging were from ISMH.

(d) The **World Health Organisation** acknowledged the contribution that the research in Stirling has made to the evidence regarding standardised packaging in a document published in February 2016 [S10]. The WHO's report in support of plain packaging states:

'Expert reviews of the evidence base underlying plain packaging include a report prepared by the Australian Preventative Health Taskforce, a review of the evidence prepared by Quit Victoria and Cancer Council Victoria in Australia, and systematic reviews of the evidence commissioned by Ireland and the UK... In 2011, before implementation of plain packaging in Australia, the UK Department of Health commissioned a review of the evidence concerning the impacts of plain tobacco packaging on public health. The Public Health Research Consortium, including researchers from respected UK academic institutions, conducted the review.' [S10, p.15]

5. ISMH staff provide expert advice on the design of the warnings on standardised packs

The ISMH team has also influenced the appearance of standardised packaging, specifically the warnings on packs. Between 2011 and 2012, Dr Moodie was one of a very small number of expert advisors to the European Commission on the development, testing and selection of the warnings to be displayed on tobacco packs in all EU countries from 2017, including on standardised packs in the UK.

5. Sources to corroborate the impact

S1. Health Secretary Jane Ellison (2014). HC Deb, 3 April 2014, c1029. <https://bit.ly/2VEMIUO>

S2. Chantler C (2014). Standardised packaging of tobacco. <http://stir.ac.uk/37n>

S3. Judgement against British America Tobacco (BAT) in High Court of Justice (2016). <http://stir.ac.uk/37o> (pages 31, 37-44, 52, 167-8, 177, 186 & 353).

S4. Hatchard et al 2014: <http://dx.doi.org/10.1136/bmjopen-2013-003757>

S5. Barber S, Conway L (2015). Standardised (plain) packaging of tobacco products. <https://bit.ly/2VHuwEJ>

S6. DH (2015). Standardised packaging of tobacco products (IA3080). <https://bit.ly/2VoPnre>

S7. New Zealand Consultation Document (2012). <https://bit.ly/2W79aQj>

S8. Norway Consultation document (2015). Cited by the Norwegian Ministry of Health and Care Services. <https://bit.ly/2JG6Wkk>

S9. Canada Consultation document (2016). <https://bit.ly/2vZPJ2E>

S10. WHO (2016). Plain packaging of tobacco products: evidence, design and implementation. <https://bit.ly/2w0M7rM>