

# INTERNATIONAL CIGARETTE PACKAGING STUDY 

## Summary Technical Report

June 2013

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## ACKNOWLEDGEMENTS

This report was prepared by Jessica Reid (Project Manager) and David Hammond (Principal Investigator), on behalf of the Research Team.

## Funding

The project described in this report was funded by the National Institutes of Health (grant number 1 P01 CA138-389-01: "Effectiveness of Tobacco Control Policies in High vs. Low Income Countries"). Additional support was provided by the Propel Centre for Population Health Impact, a Canadian Institutes for Health Research New Investigator Award (Hammond), and a Canadian Cancer Society Research Institute Junior Investigator Research Award (Hammond).

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### 1.0 INTRODUCTION

The overall aim of International Tobacco Control (ITC) Policy Evaluation Project is to evaluate and understand the impact of the tobacco control policies implemented as part of the Framework Convention on Tobacco Control (FCTC). The ITC Project consists of cohort studies with national samples of smokers in 20 countries (see www.itcproject.org).

The International Cigarette Packaging Study extends the work of the ITC national surveys within the area of tobacco packaging and labeling (Article 11 of the FCTC), with a focus upon building the evidence for novel policies in low, middle, and high income countries. The study consists of parallel experimental studies conducted in seven "high-burden" ITC countries: China, India, Bangladesh, Mexico, Republic of Korea, the United States, and Germany.

This report describes two experimental studies conducted in each country. The goals of these two studies are:
Study 1. To evaluate health warnings on tobacco packages among youth and adults, including various types of warnings (text-only, graphic, testimonial, etc.); and,

Study 2. To examine consumer perceptions of cigarette packaging design among youth and adults, including the impact of brand descriptors (e.g., light, mild, smooth, slims), brand imagery (e.g., colors and package design), and the potential impact of "plain" or standardized packaging.

### 2.0 STUDY PROTOCOL

### 2.1 OVERVIEW

Data were collected via face-to-face computer-assisted interviews and self-completed web-based surveys, and took place between June 2010 and November 2012. Surveys took approximately 20 minutes, with some variation by mode and country. Table 1 below outlines the study mode, timeline, and sites for each country.

Table 1: Study Protocols in each of the 7 Countries

| Country | Mode | Timeline | Sites |
| :--- | :--- | :--- | :--- |
| Mexico | Face-to-face | June 3-Aug. 31, 2010 | Mexico City (3 delegaciónes): 2 public parks, one <br> bus terminal, and outside 5 Walmart stores |
| United States | Online | December 2010 | National |
| China | Adults: <br> Face-to-face <br> Youth: Online | Adults: May 17-27, 2011 <br> Youth: July 12, Sept. 27- <br> Nov. 10, 2011 | Beijing <br> Adults (2 districts): outside 6 supermarket/ <br> department stores, and in one park <br> Youth (3 districts): 4 schools |
| Germany | Online | Nov. 2011-Jan. 2012 | National |
| India | Face-to-face | Apr. 10-Aug. 17, 2012 | Suburban Mumbai (2 areas) and Navi Mumbai (8 <br> nodes): 3 shopping malls, 3 McDonald's <br> restaurants, 4 market areas, and 5 public areas <br> near schools/colleges |
| Bangladesh | Face-to-face | Apr. 9-June 18, 2012 | Dhaka (8 wards): one shopping mall, 2 bus <br> terminals, 4 areas near schools/colleges, and 3 <br> public spaces |
| South Korea | Online | November 2012 | National |

### 2.2 SAMPLE AND RECRUITMENT

## Samples and Eligibility

A target study sample of 1000 (500 adults, 500 youth) in each country for each of the two studies (Study 1: Health Warnings and Stduy 2: Packaging). Table 2 (below) shows the target samples by country.

Table 2: Target Study Samples in each of the $\mathbf{7}$ Countries

| Country | Target Sample (for each study) |
| :---: | :---: |
| Mexico | - 500 adult smokers, including males and females <br> - 500 youth ( 250 males, 250 females), including both smokers and non-smokers |
| United States | - 500 adult smokers, including males and females <br> - 500 youth ( 250 males, 250 females), including both smokers and non-smokers |
| China | - 500 adult smokers, males only <br> - 500 youth ( 250 males, 250 females), including both smokers and non-smokers |
| Germany | - 500 adult smokers, including males and females <br> - 500 youth ( 250 males, 250 females), including both smokers and non-smokers |
| India | - 500 adult smokers, males only <br> - 500 youth ( 250 males, 250 females), including both smokers and non-smokers |
| Bangladesh | - 500 adult smokers, males only <br> - 500 youth ( 250 males, 250 females), including both smokers and non-smokers <br> *For Study 2 , youth target sample size was 250 males only |
| South Korea | - 500 adult smokers, males only <br> - 500 youth ( 250 males, 250 females), including both smokers and non-smokers |

NOTE: The adult samples in Asian countries included only males, as female smoking rates are low.
All respondents had to be at least 16 years of age. Two groups of people were recruited for the study:

1. adult (age 19 and older) smokers

- both males and females in Mexico, US, and Germany
- males only in China, India, Bangladesh, and South Korea

2. youth (age $16-18$ ), including both smokers and non-smokers

- both males and females, with the exception of Study 2 in Bangladesh, which included only males


## Recruitment

For face-to-face interviews, respondents were recruited from public areas in the capital city of each country for this intercept survey. For selecting who to approach and invite to participate in the survey, interviewers followed a standard intercept technique whereby a physical landmark at the site was selected, and every nth person to pass the landmark was approached (or, in areas where many potential respondents were seated, the interviewer moved in a specified direction (i.e., to their right) until they reached the nth person). A short introductory script was used to introduce the survey and check basic eligibility requirements.

For the youth survey in China only, respondents were recruited face-to-face from high schools and middle schools in Beijing. Convenience sampling was used to select four schools. Within each school, all students in grades 11 and 12 were invited to participate in the survey. Students who agreed to participate were asked to complete an online survey in their classroom.

For online surveys (US, Germany, South Korea), respondents were recruited via email from a consumer panel through Global Market Insite, Inc. (GMI) and their in-country partners. A short introductory script was emailed to panel members to introduce the survey and check basic eligibility requirements. Additional information on the GMI panel is available online (http://www.gmi-mr.com).

This sampling strategy employed was not intended to produce a pure random sample or one that was nationally representative; rather, the purpose was to produce a relatively heterogeneous sample for random allocation to the experimental conditions. In addition to quota sampling for adults and youth, we aimed for gender balance (where appropriate), and to include both smokers and non-smokers for the youth sample.

## Consent

Prior to beginning the survey, all respondents were provided with information about the study. For face-to-face interviews, respondents were asked to provide verbal consent. For the online surveys, respondents were asked to provide consent by clicking a box onscreen. In the US and Germany online surveys, for youth under 18, parental consent was provided prior to youth consent. No personal information identifiers were collected as part of this study.

## Ethics Review

The study was reviewed by and received ethics clearance from the Office of Research Ethics at the University of Waterloo. In addition, the study received within-country review from the ethical review committees at China CDC (China), Healis-Sekhsaria Institute for Public Health and the Indian Council for Medical Research (India), and the Bangladesh Medical Research Council (Bangladesh).

## Participant Compensation

As a token of appreciation, all respondents received some form of remuneration. The type and amount varied by country, and were determined with the guidance of local partner organizations, scaled to be appropriate in each country. Online survey respodents were given remuneration by the survey firm in accordance with their usual rates (Korea: equivalent to ~\$2.50 USD; US: equivalent to $\sim \$ 3$ USD; Germany equivalent to $\sim \$ 2$ USD). Face-to-face respondents received the following:

- in Mexico, a 50 peso (approximately $\$ 4$ CAD) phone card or Walmart gift card;
- in China, a small gift valued at 20 yuan (approximately $\$ 3.50$ CAD): in the form of an umbrella for adult respondents and a pen for youth respondents;
- in India, a small gift valued at 100 rupees (approximately $\$ 2$ CAD), in the form of a refreshment; and,
- in Bangladesh, a small gift with average value of 126 Bangladesh taka (approximately \$1.7 CAD):
respondents could choose between a t-shirt or a refreshment.


### 3.0 STUDY CONTENT

### 3.1 STUDY 1: HEALTH WARNING MESSAGES

The core content for Study 1 included a total of 15 sets of health warnings, relating to different health effects of smoking. Each respondent was randomly assigned to view two sets of health warnings, and warnings within each set were presented in random order.

Each set included 5-6 warnings on the same health effect, in a variety of executional styles. These included a text-only warning, as well as a variety of approaches to pictorial warnings, including graphic health effects, "lived experience", testimonials, symbolic, and other popular approaches used in other countries. The text
used in the warnings was the same for each warning within a particular set, with the exception of the testimonials. Testimonials featured the same picture as one of the "lived experience" warnings, but with a brief narrative describing a personal aspect of the same content, written as a quote from a person in the image, whose name and age were also included.

Warnings were kept as similar as possible across countries, but were adapted for local use. Adaptation of the warnings included the following: 1) translation into the local language(s), 2) use of racially appropriate models in warning label images where relevant and possible, and 3) locally-appropriate names for the testimonials (suggested by local teams). All local versions of the warnings were checked by the local investigator or research team for appropriateness.

## Country-specific variations

Specific to the Mexico version of the study, 2 additional sets of warnings relating to specific constituents of cigarette smoke were included with the core 15 sets relating to health effects.

Also in Mexico, all 8 of Mexico's new pictorial warnings (prior to implementation in September 2010) were also included in the study. These were added to the relevant sets of warnings (e.g., the Mexican warning about mouth disease was added to the existing mouth disease set). All 8 warnings were also presented in a ranking task at the end of the survey.

Similarly, in the India version of the study, all 4 of India's current cigarette package warnings were presented in a ranking task at the end of the survey.

See Error! Reference source not found. for all versions of the health warning messages tested.

### 3.2 STUDY 2: CIGARETTE PACKAGING

The cigarette packages tested in the study included both "real" packs, either locally available or from other countries, as well as systematically manipulated packages. The specific packages selected were those that provided good examples of various packaging elements such as descriptors, colours, numbers, etc. Local warnings were applied to all packs, according to current regulations.

Table 3: Cigarette packages rated in adult and youth surveys

|  | Adults | Youth |
| :--- | :--- | :--- |
| 5-6 "Real" pack pairs using locally available packs from leading <br> brands | Part A | Part B |
| 13 (or 12) Experimental packs plus 3 (or 4) cigarette pairs, <br> systematically manipulated for particular packaging elements | Part B | -- |
| 12 "Real" packs, a combination of locally available and packs <br> from other countries (altered to fit the health warnings, and <br> some descriptors changed), with a variety of elements that may <br> appeal to youth (descriptors, flavours, colour and imagery) | -- | Part A |

## Adults

In the adult version of study 2 , each respondent was randomly assigned to view and rate pairs of cigarette package (or cigarette stick) images according to one of two experimental conditions: 1) "branded" or 2) "plain" packs, with all colours and imagery removed - these conditions applied to all parts of the survey.

## Part A: Real Pack Pairs

In Part A, each respondent viewed and comparatively rated 5-6 randomly ordered pairs of "real" locally available brands, using the same measures. These packs varied by country, with the exception of Marlboro Red and Gold being included in all countries. The pack pairs were chosen to represent particular packaging/marketing elements used in each market. Respondents comparatively rated each pair of packs on four attributes: perceived taste, harm, quality, and ease of quitting (as well as likelihood of gifting, in China only).

## Part B: Experimental Pack Pairs

In Part B, each respondent viewed 16 (15-17) randomly ordered pairs of experimental packs/cigarettes that were manipulated to differ on one element such as descriptor, colour, etc. (Note: None of the packs are sold in any of the included countries, so they are novel to participants). Respondents comparatively rated each pair of packs/cigarettes on four attributes: perceived taste, harm, quality, and ease of quitting.

The same 16 pairs were used in all countries, with the exception of the pair of Winfield packs not being included in Mexico, and one additional pair of cigarette sticks being included in China. To aid comprehension, descriptors on the experimental cigarette packages were translated in Korea (Korean) and Bangladesh (Bengali) and added alongside the English descriptors; in China, brand names were replaced with Chinese names, and descriptors were translated to Chinese equivalents and replaced the English descriptors. For one pack (Export A) the descriptor used is "Rich" in the US, "Rich Taste" in Germany and India, "De buen sabor" in Mexico, "浓味" in China, "Rich/mgx" in Bangladesh, and "Rich/리치" in Korea.

## Youth

In the youth version of study 2 , each respondent was randomly assigned to one of 3 conditions: 1) "branded", 2) "plain" with full brand descriptors remaining, or 3) "plain" with descriptors removed (i.e., only the brand name).

## Part A: Real Individual Packs

The sets of packs presented to youth were gender-specific (i.e., females and males viewed and rated different sets), "real" packs selected as those that would have high appeal for youth of that gender. Youth rated a randomly-ordered series of 12 individual packs, one at a time, on 3 brand ratings (appeal, taste, and health risk), as well as 7 smoker "traits" (female/male, glamorous/not, stylish/not, popular/not, cool/not, sophisticated/not, slim/not). In China, 2 additional measures for smoker traits were asked (wealthy/not and dignified/not) in this section.

## Part B: Real Pack Pairs

As in the adult study, all respondents also viewed and comparatively rated the same 5-6 randomly ordered pairs of "real" locally available brands on attributes including perceived taste, harm, quality, and which they would rather try (as well as likelihood of gifting, in China only). Throughout the survey, packs were shown according to experimental conditions: for example, in this section, youth in Condition 1 viewed branded packs, while youth in Conditions 2 and 3 viewed "plain" packs.

## Part C: Pack Selection Task

At the end of the interview, youth also completed a pack selection task, where they were offered a pack of cigarettes as thanks for participation and presented with four packs to choose from ( 2 "branded" packs and 2 "plain" packs randomly selected from the 12 (for each of the two selected conditions) included in Part A of the study) or the option of not receiving a pack (NOTE: youth did not actually receive any cigarette packs).

In Mexico only, rather than having both plain and branded packs to choose from, the pack selection task included 4 randomly-selected packs from the condition that the respondent was assigned to for the previous sections (i.e., 4 branded, 4 plain with descriptors, or 4 plain without descriptors).

See Error! Reference source not found. for all cigarette package images tested.

### 4.0 MEASURES

### 4.1 QUESTIONNAIRE DEVELOPMENT

Questionnaire items were selected based on previous research. The socio-demographic questions and moderators (attitudes, health belief, etc.) were drawn from the national ITC surveys. Cigarette package rating questions were adapted from previous studies. Similarly, questions for the warnings were revised based on previous research. All novel measures and instructions were translated using the "committee approach", as described in the Data Management Core. ${ }^{1}$

### 4.2 QUESTIONNAIRE CONTENT

## Study 1

As described in Section 3.1, for Study 1, a total of 15 sets of health warnings relating to different health effects of smoking were tested. Each set included 5-6 warnings on the same health effect. Each respondent viewed two sets of health warnings that related to two of the health effects.

1. Each respondent was randomly assigned to view 2 "sets" of warnings (i.e., all warnings from 2 health effects).
2. Warnings within each set were ranked one at a time (in random order) on the following measures using a scale from 1 to 10 (where 1 is "not at all" and 10 is "extremely"; "in the middle" is also shown on the scale).

Please tell me [ONLINE: Please indicate] whether this warning message...
...grabs your attention
...is believable
... is relevant to you
... is surprising
...is frightening
...is disgusting
...is unpleasant
...would make people more concerned about the health risk of smoking
... would help prevent young people from starting to smoke
...would make smokers want to quit
Overall, on a scale of 1 to 10 , how effective is this health warning?
3. After viewing each set, all of the warnings within the set were rank ordered, using the following items:
"Overall, which warning do you think is the most effective for discouraging smoking?"
"Overall, which warning is the next most effective?" [repeated until all warnings selected]

## Study 2

As described in Section 3.2, for Study 2, all respondents comparatively rated 5-6 real packs, and adults comparatively rated another 16 experimentally manipulated packs/cigarettes while youth rated 12 individual cigarette packs on brand attributes and smoker traits.

## Adults

1. Each adult respondent was randomly assigned to one of 2 conditions: a "branded" or a "plain" pack condition (described above).
2. Respondents viewed pairs of packs, and comparatively rated each pair of packs on attributes including perceived taste, harm, quality, and ease of quitting. In "Part A" they viewed 5-6 randomly ordered pairs of "real" packs from leading brands within the specific country, and in "Part B" they viewed 16 randomly ordered pairs of experimental packs/cigarettes (described above).
3. While viewing each pair of packs, participants completed the following ratings:

| Which brand do you think would taste better? | 1 | Brand A |
| :--- | :--- | :--- |
| Which brand do you think would be less harmful? | 2 | Brand B |
| Which brand do you think is of higher quality? | 3 | No difference |

In China, a question regarding gifting cigarettes ("Which brand would you be more likely to give as a gift?") was added to the question set for the "Real Pack" comparative rating pairs (in Adult Part A and Youth Part B).

## Youth

1. Each youth respondent was randomly assigned to one of 3 conditions: 1) "branded", 2) "plain" with full brand descriptors remaining, or 3) "plain" with descriptors removed (i.e., only the brand name). Assignment to "branded" (Condition 1) or "plain" (Conditions 2 and 3 ) condition applied to all parts of the survey. Packs were shown according to experimental conditions.
2. In Part A, youth viewed a series of 12 individual packs, one at a time and randomly-ordered (descriptions of packs above). They rated each pack on 3 brand ratings (appeal, taste, and health), as well as 7 ( 9 in China) smoker "traits" (female/male, glamorous/not, stylish/not, popular/not, cool/not, sophisticated/not, slim/overweight).

Compared to other brands, how appealing is this brand of cigarettes?

- Less appealing than other brands
- No difference
- More appealing than other brands

Compared to other brands, how do you think these cigarettes would taste?

- Worse than other brands
- No difference
- Better than other brands

Compared to other cigarette brands, would these cigarettes be:

- Less harmful than other brands
- No difference
- More harmful than other brands

Now l'll ask you several questions about the kind of person you think would smoke this brand.
In your opinion, is someone who smokes this brand regularly more likely to be:

- Female, Male, No difference
- Glamorous, Not glamorous, No difference
- Stylish, Not stylish, No difference
- Popular, Not popular, No difference
- Cool, Not cool, No difference
- Sophisticated, Not sophisticated, No difference
- Slim, Overweight, No difference
- Wealthy, Not wealthy, No difference (China only)
- Dignified, Not dignified, No difference (China only)

3. In Part B, youth rated pairs of 5-6 leading brands within the specific country, as in the adult study. The same brands and measures were used, with one exception: "Which brand would make it easier to quit smoking?" was replaced with "Which brand would you rather try?".
4. In Part C, youth completed a pack selection task. They were asked, "As part of this study, we would like to send you pack of cigarettes to thank you for participating in this study. Please select from one of the choices below" and 4 packs were displayed on screen: 2 "branded" packs and 2 "plain" packs randomly selected from the 12 (for each of the two selected conditions) included in Part A. Youth could select one of the brands or choose the option of not receiving a pack. The main outcome measure was the proportion of respondents who chose a "branded" vs. a "plain" pack. (NOTE: youth did not actually receive any cigarette packs).

In Mexico only, rather than having both plain and branded packs to choose from, the pack selection task included 4 randomly-selected packs from the condition that the respondent was assigned to for the previous sections (i.e., 4 branded, 4 plain with descriptors, or 4 plain without descriptors).

### 5.0 SAMPLE INFORMATION

## Study 1

Table 4: Total number of respondents for Study 1

| Country | Total surveys (Complete/Partial*) |  |  |
| :--- | :--- | :--- | :--- |
|  | Adult Sample | Youth Sample | Overall |
| Mexico | $\mathbf{5 4 4}(492 / 52)$ | $\mathbf{5 2 8}(504 / 24)$ | $\mathbf{1 0 7 2}(996 / 76)$ |
| United States | $\mathbf{8 4 4}(772 / 72)$ | $\mathbf{7 1 9}(677 / 42)$ | $\mathbf{1 5 6 3}(1449 / 114)$ |
| China | $\mathbf{5 0 4}(498 / 6)$ | $\mathbf{5 6 6}(520 / 46)$ | $\mathbf{1 0 7 0}(1018 / 52)$ |
| Germany | $\mathbf{6 2 3}(581 / 42)$ | $\mathbf{5 8 3}(514 / 69)$ | $\mathbf{1 2 0 6}(1095 / 111)$ |
| India | $\mathbf{5 0 3}(500 / 3)$ | $\mathbf{5 0 9}(503 / 6)$ | $\mathbf{1 0 1 2}(1003 / 9)$ |
| Bangladesh | $\mathbf{5 1 3}(499 / 14)$ | $\mathbf{5 0 6}(497 / 9)$ | $\mathbf{1 0 1 9}(996 / 23)$ |
| South Korea | $\mathbf{6 2 1}(530 / 91)$ | $\mathbf{7 4 1}(608 / 133)$ | $\mathbf{1 3 6 2}(1138 / 224)$ |
| TOTAL | $\mathbf{4 1 5 2}(\mathbf{3 8 7 2 / 2 8 0 )}$ | $\mathbf{4 1 5 2 ( 3 8 2 3 / 3 2 9 )}$ | $\mathbf{8 3 0 4}(\mathbf{7 6 9 5 / 6 0 9 )}$ |

*Partial surveys include those with at least one set of ratings complete, and may be included or dropped from subsequent analyses as appropriate

Table 5: Number of respondents assigned to each warning set*in Study 1, by country and overall

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\stackrel{0}{9}$ | $\begin{aligned} & \text { fĩ } \\ & \text { 。 } \end{aligned}$ |  |  |  |  |  |  |  |  | n |  |  | - |
| MEXICO Total | 124 | 124 | 63 | 62 | 65 | 68 | 67 | 63 | 62 | 63 | 64 | 66 | 62 | 64 | 64 |
| Adult | 62 | 62 | 62 | 62 | 61 | 60 | 60 | 63 | 63 | 63 | 61 | 61 | 62 | 61 | 67 |
| Youth | 62 | 62 | 125 | 124 | 126 | 128 | 127 | 126 | 125 | 126 | 125 | 127 | 124 | 125 | 131 |
| $\begin{aligned} & \overline{\text { US }} \\ & \text { Total } \end{aligned}$ | 195 | 191 | 193 | 189 | 193 | 192 | 189 | 202 | 188 | 190 | 196 | 191 | 193 | 201 | 195 |
| Adult | 118 | 115 | 105 | 114 | 111 | 110 | 106 | 125 | 101 | 104 | 119 | 115 | 113 | 123 | 109 |
| Youth | 91 | 97 | 97 | 92 | 97 | 99 | 100 | 98 | 95 | 100 | 99 | 90 | 92 | 94 | 97 |
| $\begin{aligned} & \hline \text { CHINA } \\ & \text { Total } \end{aligned}$ | 142 | 138 | 145 | 149 | 131 | 138 | 139 | 149 | 146 | 141 | 148 | 150 | 145 | 140 | 139 |
| Adult | 70 | 67 | 70 | 67 | 66 | 67 | 66 | 68 | 66 | 64 | 70 | 69 | 68 | 65 | 65 |
| Youth | 72 | 71 | 75 | 82 | 65 | 71 | 73 | 81 | 80 | 77 | 78 | 81 | 77 | 75 | 74 |
| GERMANY Total | 159 | 161 | 161 | 162 | 158 | 167 | 156 | 166 | 165 | 159 | 173 | 158 | 152 | 162 | 153 |
| Adult | 79 | 83 | 87 | 88 | 83 | 86 | 76 | 84 | 88 | 82 | 88 | 82 | 79 | 83 | 78 |
| Youth | 80 | 78 | 74 | 74 | 75 | 81 | 80 | 82 | 77 | 77 | 85 | 76 | 73 | 79 | 75 |
| INDIA <br> Total | 132 | 141 | 136 | 135 | 131 | 133 | 133 | 132 | 133 | 141 | 133 | 138 | 132 | 138 | 136 |
| Adult | 66 | 72 | 67 | 70 | 67 | 68 | 65 | 65 | 67 | 67 | 66 | 67 | 64 | 68 | 66 |
| Youth | 66 | 69 | 69 | 65 | 64 | 65 | 68 | 67 | 66 | 74 | 67 | 71 | 68 | 70 | 70 |
| BANGLA. <br> Total | 133 | 139 | 141 | 131 | 140 | 132 | 137 | 133 | 138 | 144 | 132 | 135 | 136 | 134 | 133 |
| Adult | 67 | 72 | 67 | 66 | 70 | 66 | 71 | 66 | 70 | 74 | 69 | 68 | 70 | 64 | 66 |
| Youth | 66 | 67 | 74 | 65 | 70 | 66 | 66 | 67 | 68 | 70 | 63 | 67 | 66 | 70 | 67 |
| KOREA <br> Total | 192 | 184 | 188 | 185 | 190 | 177 | 188 | 176 | 175 | 173 | 179 | 192 | 182 | 181 | 162 |
| Adult | 86 | 80 | 80 | 85 | 85 | 83 | 88 | 79 | 83 | 77 | 84 | 91 | 85 | 84 | 72 |
| Youth | 106 | 104 | 108 | 100 | 105 | 94 | 100 | 97 | 92 | 96 | 95 | 101 | 97 | 97 | 90 |
| TOTAL | 1077 | 1078 | 1027 | 1013 | 1008 | 1007 | 1009 | 1021 | 1007 | 1011 | 1025 | 1030 | 1002 | 1020 | 982 |
| Adult | 536 | 539 | 534 | 540 | 534 | 532 | 522 | 533 | 533 | 526 | 543 | 542 | 535 | 535 | 517 |
| Youth | 541 | 539 | 617 | 597 | 596 | 595 | 607 | 614 | 600 | 611 | 604 | 610 | 591 | 607 | 599 |

*Note that final numbers completing each set of ratings may vary slightly due to incomplete surveys. Also note that each individual will be represented in two groups, since each respondent viewed two sets of warnings.

## Study 2

Table 6: Total number of respondents for Study 2

| Country | Total surveys (Complete/Partial*) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Adult Sample |  |  | Youth Sample |  |  | Overall |  |  |
|  | All | Males | Females | All | Males | Females | All | Males | Females |
| Mexico | $\begin{array}{\|l\|} \hline 551 \\ (530 / 21) \end{array}$ | $\begin{aligned} & 300 \\ & (287 / 13) \end{aligned}$ | $\begin{aligned} & 251 \\ & (243 / 8) \end{aligned}$ | $\begin{aligned} & \mathbf{5 4 1} \\ & (519 / 22) \end{aligned}$ | $\begin{aligned} & \hline 265 \\ & (258 / 7) \end{aligned}$ | $\begin{aligned} & 276 \\ & (261 / 15) \end{aligned}$ | $\begin{array}{\|l\|} \hline 1092 \\ (1049 / 43) \end{array}$ | $\begin{aligned} & 565 \\ & (545 / 20) \end{aligned}$ | $\begin{aligned} & 527 \\ & (504 / 23) \end{aligned}$ |
| United States | $\begin{array}{\|l} \hline \mathbf{8 3 8} \\ (759 / \\ 79) \\ \hline \end{array}$ | $\begin{aligned} & 255 \\ & (230 / \\ & 25) \end{aligned}$ | $\begin{aligned} & 583 \\ & (529 / \\ & 54) \\ & \hline \end{aligned}$ | $\begin{aligned} & 2340 \\ & (2277 / \\ & 63) \\ & \hline \end{aligned}$ | $\begin{aligned} & 943 \\ & (923 / \\ & 20) \end{aligned}$ | $\begin{aligned} & 1397 \\ & \text { (1354/ } \\ & 43) \\ & \hline \end{aligned}$ | $\begin{aligned} & 3178 \\ & (3036 / 142) \end{aligned}$ | $\begin{aligned} & 1198 \\ & (1153 / \\ & 45) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1980 \\ & (1883 / \\ & 97) \\ & \hline \end{aligned}$ |
| China | $\begin{array}{\|l\|} \hline 511 \\ (505 / 6) \end{array}$ | $\begin{aligned} & \hline 511 \\ & (505 / 6) \end{aligned}$ | -- | $\begin{aligned} & \hline 527 \\ & (518 / 9) \end{aligned}$ | $\begin{aligned} & \hline 275 \\ & (269 / 6) \end{aligned}$ | $\begin{aligned} & \hline 252 \\ & (249 / 3) \end{aligned}$ | $\begin{array}{\|l\|} \hline 1038 \\ (1023 / 15) \\ \hline \end{array}$ | $\begin{aligned} & 786 \\ & (774 / 12) \end{aligned}$ | $\begin{aligned} & \hline 252 \\ & (249 / 3) \end{aligned}$ |
| Germany | $\begin{array}{\|l\|} \hline 563 \\ (529 / 34) \\ \hline \end{array}$ | $\begin{aligned} & 257 \\ & (246 / 11) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 306 \\ & (283 / 23) \\ & \hline \end{aligned}$ | $\begin{array}{\|l} \hline 537 \\ (512 / 25) \\ \hline \end{array}$ | $\begin{aligned} & 226 \\ & (215 / 11) \\ & \hline \end{aligned}$ | $\begin{aligned} & 311 \\ & (297 / 14) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 1100 \\ (1041 / 59) \\ \hline \end{array}$ | $\begin{aligned} & 483 \\ & (461 / 22) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 617 \\ & (580 / 37) \\ & \hline \end{aligned}$ |
| India | $\begin{array}{\|l\|} \hline 524 \\ (506 / 18) \\ \hline \end{array}$ | $\begin{aligned} & 524 \\ & (506 / 18) \\ & \hline \end{aligned}$ | -- | $\begin{array}{\|l\|} \hline 640 \\ (637 / 3) \\ \hline \end{array}$ | $\begin{aligned} & 362 \\ & (361 / 1) \\ & \hline \end{aligned}$ | $\begin{aligned} & 278 \\ & (276 / 2) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 1164 \\ (1143 / 21) \\ \hline \end{array}$ | $\begin{aligned} & \hline 886 \\ & (867 / 19) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 278 \\ & (276 / 2) \\ & \hline \end{aligned}$ |
| Bangladesh | $\begin{array}{\|l\|} \hline 514 \\ (499 / 15) \\ \hline \end{array}$ | $\begin{aligned} & \hline 514 \\ & (499 / 15) \\ & \hline \end{aligned}$ | -- | $\begin{array}{\|l\|l} \hline 269 \\ (265 / 4) \\ \hline \end{array}$ | $\begin{aligned} & 269 \\ & (265 / 4) \end{aligned}$ | -- | $\begin{array}{\|l\|} \hline 783 \\ (764 / 19) \\ \hline \end{array}$ | $\begin{aligned} & 783 \\ & (764 / 19) \end{aligned}$ | -- |
| South <br> Korea | $\begin{array}{\|l\|} \hline 571 \\ (512 / 59) \\ \hline \end{array}$ | $\begin{aligned} & 571 \\ & (512 / 59) \\ & \hline \end{aligned}$ | -- | $\begin{array}{\|l} \hline 665 \\ (622 / 43) \\ \hline \end{array}$ | $\begin{aligned} & 330 \\ & (308 / 22) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 335 \\ & (314 / 21) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 1236 \\ (1134 / 102) \\ \hline \end{array}$ | $\begin{aligned} & 901 \\ & (820 / 81) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 335 \\ & (314 / 21) \\ & \hline \end{aligned}$ |
| TOTAL | $\begin{array}{\|l\|} \hline 4072 \\ (3840 / \\ \hline 232) \\ \hline \end{array}$ | $\begin{aligned} & \hline 2932 \\ & (2785 / \\ & 147) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 1140 \\ & (1055 / \\ & 85) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 5519 \\ (5350 / \\ 169) \\ \hline \end{array}$ | $\begin{aligned} & \hline 2670 \\ & (2599 / \\ & 71) \\ & \hline \end{aligned}$ | $\begin{aligned} & 2849 \\ & \text { (2751/ } \\ & 98) \\ & \hline \end{aligned}$ | 9591 <br> (9190) <br> 401) | $\begin{aligned} & 5602 \\ & (5384 / \\ & 218) \\ & \hline \end{aligned}$ | $\begin{aligned} & 3989 \\ & (3806 / \\ & 183) \\ & \hline \end{aligned}$ |

*Partial surveys include those with at least one set of ratings complete, and may be included or dropped from subsequent analyses as appropriate

Table 7: Number of respondents assigned to each condition in Study 2, by country and overall

|  | ADULTS |  | YOUTH |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 Branded | 2 Plain | 1 Branded | 2 Plain with Descriptors | 3 Plain No Descriptors |
| MEXICO ( $\mathrm{n}=1092$ ) |  |  |  |  |  |
| Adult | 276 | 275 | - | - | - |
| Youth | - | - | 176 | 183 | 182 |
| Female | - | - | 89 | 96 | 91 |
| Male | - | - | 87 | 87 | 91 |
| US ( $\mathrm{n}=3178$ ) |  |  |  |  |  |
| Adult | 406 | 432 | - | - | - |
| Youth | - | - | 779 | 779 | 782 |
| Female | - | - | 464 | 468 | 465 |
| Male | - | - | 315 | 311 | 317 |
| CHINA ( $\mathrm{n}=1038$ ) |  |  |  |  |  |
| Adult | 257 | 254 | - | - | - |
| Youth | - | - | 193 | 192 | 142 |
| Female | - | - | 107 | 82 | 86 |
| Male | - | - | 86 | 110 | 56 |
| GERMANY ( $\mathrm{n}=1100$ ) |  |  |  |  |  |
| Adult | 281 | 282 | - | - | - |
| Youth | - | - | 182 | 179 | 176 |
| Female | - | - | 108 | 101 | 102 |
| Male | - | - | 74 | 78 | 74 |
| INDIA ( $\mathrm{n}=1164$ ) |  |  |  |  |  |
| Adult | 257 | 267 | - | - | - |
| Youth | - | - | 144 | 145 | 351* |
| Female | - | - | 65 | 63 | 150* |
| Male | - | - | 79 | 82 | 201* |
| BANGLADESH ( $\mathrm{n}=783$ ) |  |  |  |  |  |
| Adult | 252 | 262 | - | - | - |
| Youth Male | - | - | 71 | 70 | 128 |
| KOREA ( $\mathrm{n}=1236$ ) |  |  |  |  |  |
| Adult | 294 | 277 | - | - | - |
| Youth | - | - | 215 | 220 | 230 |
| Female | - | - | 110 | 110 | 115 |
| Male | - | - | 105 | 110 | 115 |

*Due to a software error with randomization of respondents to groups, additional respondents were initially assigned to condition 3. Although this error was corrected, an increased number of respondents were in condition 3 overall.

## REFERENCES

1. Harkness JA, Pennell BA, Schoua-Glusberg A. Survey questionnaire translation and assessment. In: S Pressler, JM Rothgeb, MP Couper, JT Lessler, E Martin, J Martin, E Singer, eds. Methods for testing and evaluating survey questionnaires: 453-473. Hoboken, NJ: Wiley \& Sons Inc, 2004.
