**Study Objective:** To conduct a pre-post analysis of these indicators to evaluate how pictorial HWL textual framing (factual- vs. personal-text) and depictions of harm (self-harm vs. smokers-harming-others) may impact HWL effectiveness in China.

**Methods**

- Cross-sectional randomized experimental survey conducted during 2016 in Beijing, Shanghai, Wuhan, and Kunming.
- Sample (n=1612): adult smokers; 50% < 40 years old, 50% >= 40 years old; 95% men, 5% women.
- Answered questions regarding indicators of effectiveness of the current text-only HWLs in China. Note: Participants were prompted to recall the current HWLs prior to answering the questions. Images of the current text-only HWLs were not viewed by participants during the survey.
- Randomized to one of four groups: self-harm & factual text, self-harm & personal text, smokers-harming-others & factual text, and smokers-harming-others & personal text. Each group of HWLs included eight HWLs: four pathology and four individual suicide prevention materials.
- Answered questions regarding indicators of pictorial HWL effectiveness.
- Two-tailed t-tests, \( \alpha = 0.05 \), were conducted to compare differences between text-only (pre-) and pictorial (post-) HWL indicators.

**Sample of mock cigarette packs with HWLs (English translations), by independent group**

- Self-harm messages + factual text: Smoking causes stroke.
- Self-harm messages + personal text: Smoking caused my mouth cancer.
- Smokers-harming-others messages + factual text: Smoking causes lung cancer in others.
- Smokers-harming-others messages + personal text: My smoking caused my child's asthma.

**Results**

**Pre-post comparison of indicators of cigarette pictorial HWL effectiveness, irrespective of randomization**

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Salience (1-5, 5 being most effective); Thinking about health risks (1-5, 5 being most effective); Perceived risk of smoking (1-5, 5 being most effective); Thinking about quitting (1-4, 4 being most effective); Forgoing next cigarette (1-5, 5 being most effective); Avoidance (1-2, 2 being not likely to avoid)</th>
<th>Thinking about health risks (1-5, 5 being most effective); Perceived risk of smoking (1-5, 5 being most effective); Thinking about quitting (1-4, 4 being most effective); Forgoing next cigarette (1-5, 5 being most effective); Avoidance (1-2, 2 being not likely to avoid)</th>
</tr>
</thead>
</table>
| Pre-exposure   | 2.3 [REF]  
2.4 [REF]  
2.4 [REF]  
1.8 [REF]  
1.9 [REF]  
1.6 [REF] | 3.1*  
2.7*  
2.9*  
2.2*  
2.6*  
1.7* |
| Post-exposure  | 2.3 [REF]  
2.4 [REF]  
2.4 [REF]  
1.8 [REF]  
1.9 [REF]  
1.6 [REF] | 3.1*  
2.7*  
2.9*  
2.2*  
2.6*  
1.7* |

**Discussion**

- All reported indicators of HWL effectiveness increased after viewing pictorial HWLs with the exception of avoidance of factual pictorial HWLs.
- Data suggest that both personal and factual pictorial HWLs depicting smoking or secondhand smoke-related harms are effective.
- Future studies can use these indicators as tools to identify the most effective and culturally relevant pictorial HWLs for Chinese smokers.

**Acknowledgment:** This work was supported with funding from Bloomberg Philanthropies’ Bloomberg Initiative to Reduce Tobacco Use (bloomberg.org)