Perceived Health Risk of the Tobacco Heating System and Comparators, Associated with Variants of a Potential Product Brochure

Intro

The Tobacco Heating System (THS) is a candidate Reduced-Risk Product (RRP). A premarket assessment of an RRP's public health impact must consider the risk perceptions associated with marketing material, because risk perceptions are likely to influence use patterns.

Methods

Three 5-arm experiments were conducted in the US. Here we present data from the two study arms on variants of a potential THS Brochure (n=943, 933, 958). The potential THS Brochure provided information on THS characteristics, risks, and the differences with cigarettes. The brochure carried a claim specific to each study and a warning, which was either a proposed PMI warning or one of the Surgeon General’s four warnings.

In each study:
1. Arm 1 corresponded to: THS Brochure with one of the four Surgeon General Warnings rotated
2. Arm 2 corresponded to: THS Brochure with a proposed PMI Warning

Conclusions

The potential versions of the THS Brochure were associated with a consistent overall pattern of Perceived Health Risk, with CC being rated highest, the THS being rated next highest and NRTs and Cessation being rated lowest.

Results: Perceived health risk

Reduced risk of disease

Reduction risk of harm

Reduced exposure to HPHEs
Perceived Health Risk of the Tobacco Heating System and Comparators, Associated with Variants of a Potential Product Brochure

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Introduction and Objectives

The Tobacco Heating System (THS) is a candidate Reduced-Risk Product (RRP). A premarket assessment of the public health impact of an MRTP must consider risk perceptions associated with marketing material, because risk perceptions are likely to influence patterns of use.

Method

Three 5-arm experiments were conducted in the US. Here we present data from the two study arms on variants of a potential THS Brochure (n=943, 933, 958). The potential THS Brochure provided information on THS characteristics, risks, and the differences with cigarettes. The brochure carried a claim specific to each study and a warning, which was either a proposed PMI warning or one of the four of the Surgeon General’s warnings.

IN EACH STUDY:

1. Arm 1 corresponded to: THS Brochure with one of the four Surgeon General’s Warnings rotated
2. Arm 2 corresponded to: THS Brochure with a proposed PMI Warning
3. Sample was stratified by smoking status, age, sex and city
4. Data were acquired by computer-assisted self interviews
5. Study was approved by an Institutional Review Board

GROUPS (FOR ALL ARMS):

1. Adult Smokers with no Intention to Quit CC (S-NITQ)
2. Adult Smokers with the Intention to Quit CC (S-ITQ)
3. Adult Former Smokers (FS)
4. Adult Never Smokers (NS)
5. Young Adult Never Smokers from the legal smoking age to 25 years (LA-25 NS)

PERCEIVED HEALTH RISK:

The Perceived Health Risk was measured for THS and comparators (CC, E-cigarettes, NRTs and Cessation) using the Perceived Risk Instrument Personal Risk (PRI-P), a self-report psychometrically validated instrument developed by PMI. The instrument was comprised of an 18-item Perceived Health Risk scale, producing a Rasch score between 0 (No Risk) and 100 (Very High Risk).
## CLAIMS OF THE DIFFERENT STUDIES

<table>
<thead>
<tr>
<th>Study 1</th>
<th>Study 2</th>
<th>Study 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Claim summary</strong></td>
<td>Reduced risk of disease</td>
<td>Less risk of harm</td>
</tr>
<tr>
<td><strong>Claim text</strong></td>
<td>The iQOS system heats tobacco but does not burn it. This significantly reduces the production of harmful and potentially harmful chemicals. Scientific studies have shown that switching completely from conventional cigarettes to the iQOS system can reduce the risks of tobacco-related diseases.</td>
<td>Switching completely to iQOS presents less risk of harm than continuing to smoke cigarettes.</td>
</tr>
<tr>
<td><strong>PMI Warning</strong></td>
<td>Reduced risk does not mean no risk. The best way to reduce your risk of tobacco-related diseases is to completely quit tobacco use. Tobacco Sticks contain nicotine which is addictive. Using the iQOS system can harm your health.</td>
<td>Less risk of harm does not mean no risk of harm. The best way to reduce your risk of tobacco-related diseases is to completely quit tobacco use. Tobacco Sticks contain nicotine which is addictive.</td>
</tr>
</tbody>
</table>
Results

1. REDUCED RISKS OF TOBACCO-RELATED DISEASES CLAIM

THS 2.2 Brochure, SG Warning (Arm 1)

THS 2.2 Brochure, PMI Warning (Arm 2)
2. REDUCED RISK OF HARM CLAIM

THS 2.2 Brochure, SG Warning (Arm 1)

THS 2.2 Brochure, PMI Warning (Arm 2)

0 0 0 0 0
Very High Risk Very High Risk
No Risk No Risk

Adult Smokers with No Intention to Quit CC
Adult Smokers with the Intention to Quit CC
Adult Former Smokers
Adult Never Smokers
LA-25 Adult Never Smokers

- Cigarettes
- THS
- E-cigarettes
- Cessation
- NRT
3. REDUCED EXPOSURE TO HPHCS CLAIM

![Graph showing reduced exposure to HPHCS claim for different groups of smokers.](image-url)
Conclusions

The potential versions of the THS Brochure were associated with a consistent overall pattern of Perceived Health Risk, with CC being rated highest, the THS being rated next highest and NRTs and Cessation being rated lowest.
Reduced-Risk Products ("RRPs") is the term we use to refer to products that present, are likely to present, or have the potential to present less risk of harm to smokers who switch to these products versus continued smoking. We have a range of RRPs in various stages of development, scientific assessment and commercialization. Because our RRPs do not burn tobacco, they produce far lower quantities of harmful and potentially harmful compounds than found in cigarette smoke.

Competing Financial Interest

The research described in this brochure was sponsored by the Philip Morris International group of companies.

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