How Do Consumers Use the Candidate Modified Risk Tobacco Product (MRTP): Tobacco Heating System (THS): Analysis of Data From Six Countries

Steve Rotul*, Pierpaolo Magnani†, Gerd Kalischitz‡, Stefano Badoglio§, Kurt Ackermann*, Marcus Wehr*, Ariella Dugan¶, Chris Gage∥, Claudia Kantischer†, Mercedes Apecchea#, Antonio Ramazzotti†

PMI Morris International (PMI) conducted consumer studies in several countries for one of its Candidate Modified Risk Tobacco Products (MRTPs), the THS. THS is composed of a Tobacco Heating Device (Heater and Chamber) and Tobacco Sticks.

The purpose of these studies was to investigate how adult daily smokers actually used THS in near-to-real-world conditions. The studies were conducted in Japan, Italy, Germany, Switzerland, South Korea and the U.S. Each study was a single group, prospective observational study, implying an assessment of subject-reported stick-by-stick consumption of Tobacco Sticks and cigarettes (CC). Participants received Tobacco Sticks free of charge on a mailed basis and were able to consume Tobacco Sticks, cigarettes and other nicotine containing products ad libitum. The length of the observational period was a minimum of 6 weeks.

To ensure a good representation of the country adult smoker population, each sample was approximated the distribution of such population according to several key characteristics such as age, sex, race, income, social status and brand of cigarettes (when appropriate). Participants were recruited using statistical axes maintained by local market research agencies and enrolment was done through interviews in between 2 and 8 central study locations, depending on the country. The number of enrolled participants ranged from 581 in Switzerland to 1,036 in the U.S. A “pseudo” randomization mechanism was also put in place to collect spontaneously reported events (e.g. adverse events).

Across these 6 countries, the data show that a sizeable proportion of participants adopted a usage behavior involving either predominant or exclusive use of Tobacco Sticks in between 9.9% in Switzerland and 33.1% in South Korea had switched (i.e. 70% of tobacco products [Tobacco Sticks and CC] used were Tobacco Sticks) from CC to Tobacco Sticks at the end of the observational period.

Patterns of Use Over Time

The baseline period served to estimate the participants’ regular smoking patterns of CC. During a subsequent 6-week observational period, participants recorded their stick-by-stick consumption of both THS and CC.

The observational period served to assess the development of consumption patterns among the participants. For the beginning of the observational period, participants received the Tobacco Heating Device and 5 packs of Tobacco Sticks (packs of 20) in accordance with their stated preferences (i.e. regular or indifferent variant). Participants were able to obtain additional Tobacco Sticks packs by calling the study toll-free telephone hotline or by giving the study site where they had been enrolled.

The study concluded with a 2-week close out period, during which participants were not required to record any data; however, they were able to call the toll-free telephone hotline. This allowed for the continued surveillance of adverse events (AEs).

During the entire study, participants were able to consume CC, THS Tobacco Sticks and any other nicotine containing products ad libitum. They were required to make an entry into an electronic diary every time they consumed a CC during the baseline period and a THS or a CC during the observational period. A sufficiently easy and intuitive electronic diary was used due to the high frequency of daily consumption over an extended period of time.

The below figure traces all steps that a participant went through in this study from enrolment until end of close out period.

Results

The data indicate that THS has the potential to completely “switch” a sizeable proportion of participants, as 75.5% of the participants were using THS exclusively at the end of the observational period.

Conclusions

Based on these studies, several key conclusions can be drawn regarding the likely behavior of adult daily smokers. A sizeable proportion of adult daily smokers is likely to “switch” from CC to THS and is likely to use THS exclusively or predominantly as a substitute to CC, with the proportion of exclusives likely to remain overall stable over time. There is a higher likelihood of adoption of THS among adult smokers living in Asia compared to Europe or the U.S.

It is likely that a certain proportion of adult daily smokers will use THS and CC in a combined way. This data also indicates that the proportion of combined use is decreasing over time with adult daily smokers either returning to CC or, to a lesser extent, adopting an exclusions or predominant use of THS.

REFERENCES


CoreSTA, Science/Product Technology, Kitzbühel, Austria

8-12 October 2017

Phillip Morris International