

# Some like it hot – but we don't know how hot until they try

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## Introduction:

R&D and marketing groups are eager to understand where the next opportunity for spicy-hot infusion may be and what the consumer tolerance is for chili-related irritation.

The current work describes the habits, appetites, and tolerances for spicy-hot products in an ethnically diverse, metropolitan North American sample. Building out from a core set of spicy-hot products evaluated internally and on consumer panels, a diverse product list was presented as part of the survey for rating of recalled hedonic and spicy-hot intensity. Also discussed is the use of recalled spicy-hot experience to segment individuals and to gauge the preferred chili-irritation intensity/intensities across the sample. The results presented here are only a small part of more comprehensive research undertaken by ACCE to bring further understanding of spicy food consumers' preferences, and to help food developers, by creating a universal heat scale with standards for evaluating heat intensity.

## Methods:

In order to explore consumers' usage and attitudes of chili peppers and spicy foods, and to reach out to a large segment of the population, a web-based survey questionnaire, was administrated to a sample of 12,565 consumers, living in Southern Ontario. N=1,537 consumers completed the survey questionnaire, which was split up into several sections targeting users and non users of spicy-hot foods. This poster focusses on the spicy-hot food users.

## Results & Discussion:

### Who are the spicy-hot food users?

Of the n=1,537 respondents who completed the survey, the majority (n=1251, 81%) indicated that they were regular users of spicy-hot foods. Almost half (45%) of the spicy-hot food users claimed consuming spicy foods/beverages 4 times per week or more frequently.

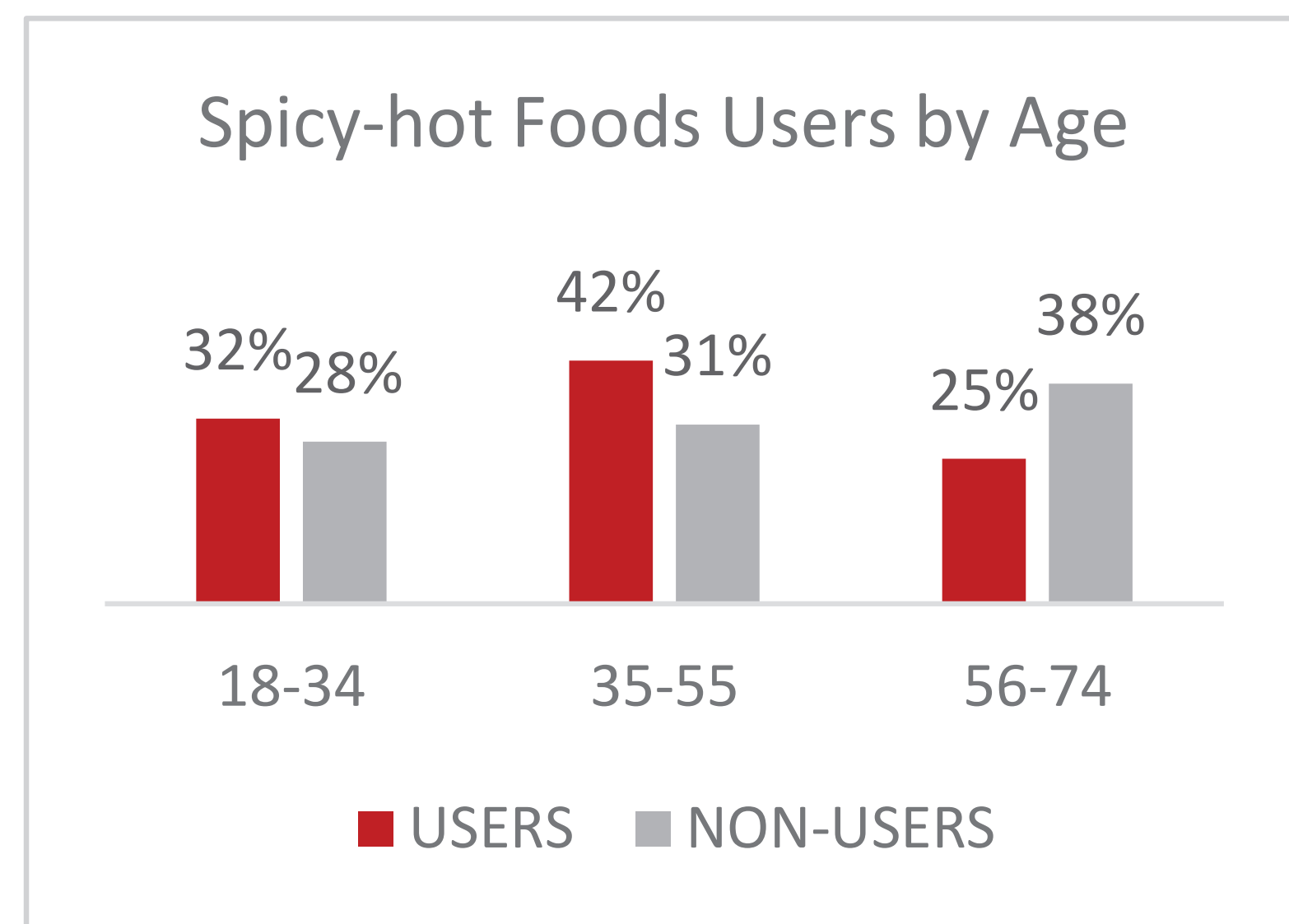
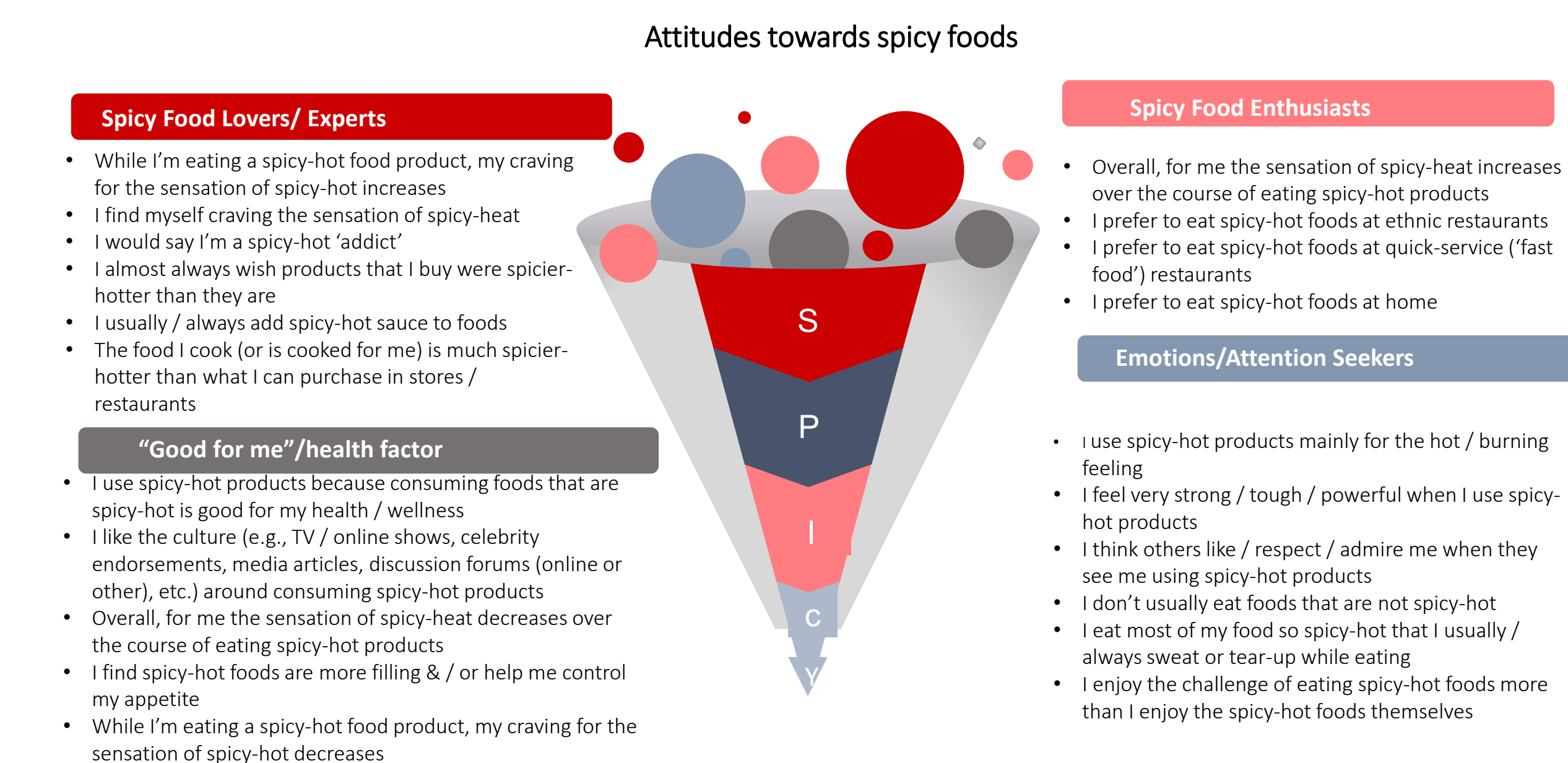


Fig 1. Respondents aged 18-55 more likely to be users of spicy-hot foods

Over 50% users claimed growing up around spicy-hot foods, whereas 39% indicated they started eating spicy-hot foods as adults (18-50 years of age).

### Based on attitudinal statements four user segments were identified



## Pairing Spicy-hot with other flavours

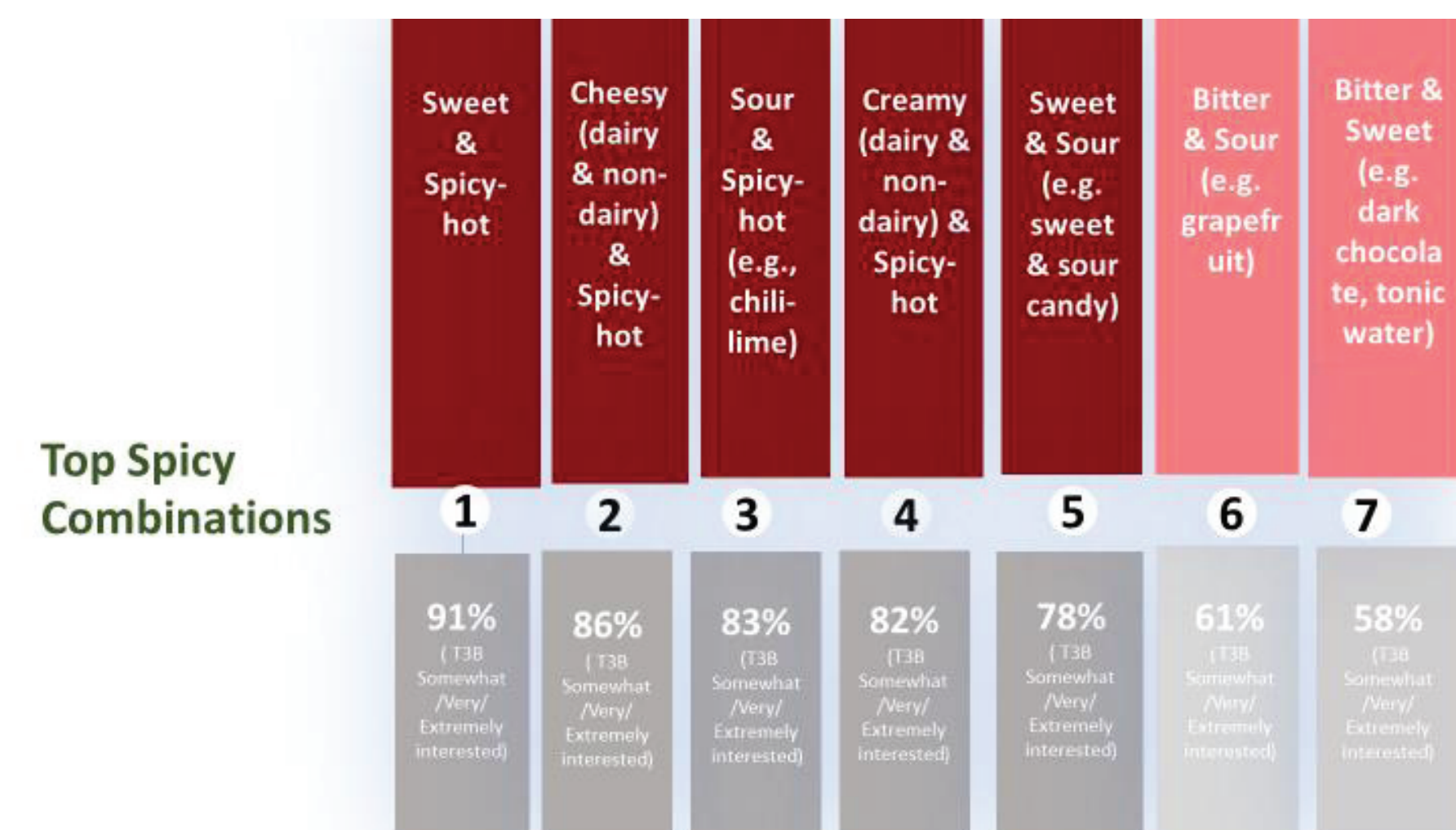


Fig 2. Consumers showed a strong interest in combinations of spicy-hot and other flavours, with sweet and spicy-hot in the top position.

## Consumers' tolerance for spicy foods

For a majority of consumers (71%), their stated heat tolerance ranged from medium-high medium; but a small group (17%) liked to go to extreme heat (high tolerance), potentially offering an eating thrill (chili-heads); this was in direct opposition to another small group (13%) who preferred a barely perceivable intensity of heat (low tolerance).

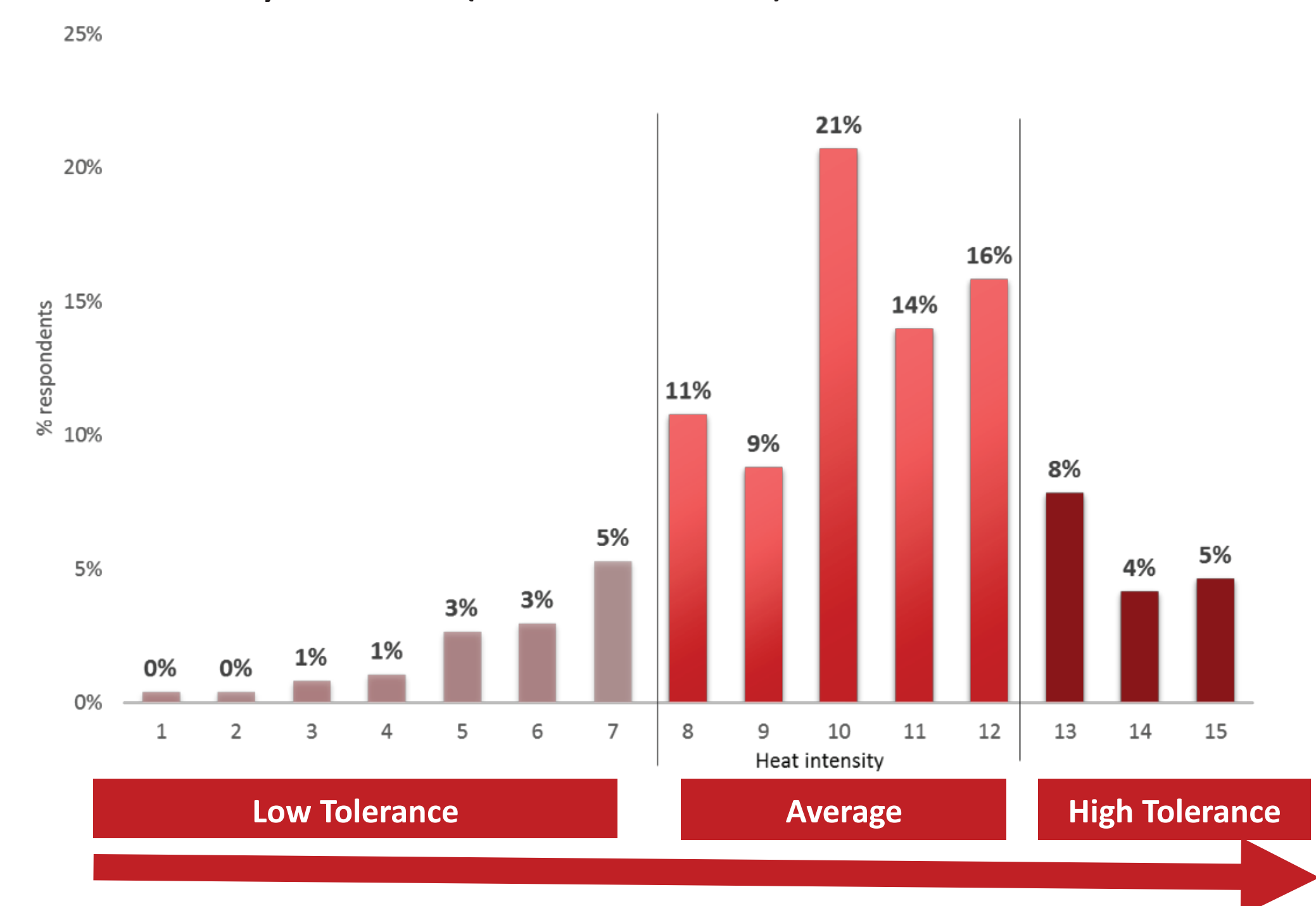


Fig 3. Consumers' tolerance for spicy-hot foods

The recalled heat liking and heat intensity ratings (from the consumers) for common foods in the marketplace showed opposite trends when averaged across all consumers. On average, the products recalled as having a high heat intensity were liked less than those products with a recalled lower heat intensity. This inverse relationship further underlined the importance for product developers to understand their consumers' preferences.

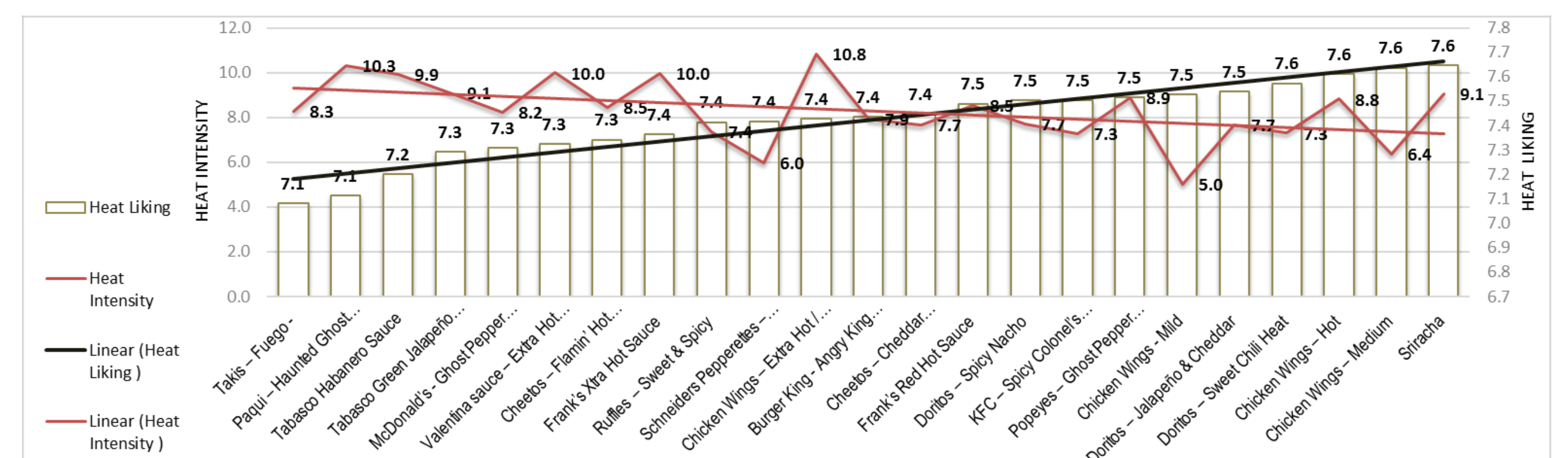


Fig 4. Recalled heat liking and heat intensity for common market foods (TBC in-situ evaluation with consumers and trained panel).

## Conclusions

Considering significant heat preferences amongst consumers, food manufacturers can be aided by knowing the food tolerance of their target consumers. As well, appropriate communication of product heat levels of their products will help their success in the marketplace.