

BACKGROUND

- In Brazil, the sale, import, and advertising of e-cigarettes (ECs) has been banned since August 2009.
- Although the prevalence of ever use of ECs among Brazilian smokers is low (20% of smokers in 2016-17), the 5th lowest of 21 ITC countries, ITC data shows an upward trend in ever use between 2012 and 2017.
- Little is known about the reasons why Brazilian smokers try or use e-cigarettes (ECs) and how they perceive the harmfulness of these products compared to regular cigarettes.

OBJECTIVES

- To identify reasons for using ECs among smokers who reported ever using ECs in Rio de Janeiro, São Paulo, and Porto Alegre in 2016-17.
- To measure changes in Brazilian smokers' perceptions of harms of ECs compared to harms of smoking regular cigarettes between 2012-13 and 2016-17.

METHODS AND MEASURES

DESIGN: Data were analyzed from Waves 2 (2012-13) and 3 (2016-17) of the International Tobacco Control (ITC) Brazil Survey, a longitudinal cohort survey of representative samples of approximately 1200 adult smokers and 600 non-smokers (N=1826) in Rio de Janeiro, São Paulo, and Porto Alegre.

MEASURES: **Reasons for EC use** was measured at Wave 3 among smokers who reported currently using EC daily, weekly, monthly, and less than monthly (n=48). Users were asked "Which of the following are reasons for your use of ECs or vaping devices". A list 15 possible reasons were provided (see Figure 1). Response options were "Yes", "No", "Refused", "Don't know".

Perception of the harm of ECs compared to regular cigarettes was measured at Waves 2 and 3 by asking smokers who had ever heard of ECs (n=392 at Wave 2; N=859 at Wave 3) "Do you think electronic cigarettes are more harmful than regular cigarettes, less harmful, or are they equally harmful to health?"

ANALYSES: Multivariable logistic regression analyses (GEE) adjusted for sex, age, smoking status, and time-in-sample were conducted to test for differences in beliefs about the harmfulness of ECs at Waves 2 and 3.

RESULTS

Figure 1. Percentage of smokers who reported various reasons for using e-cigarettes at Wave 3

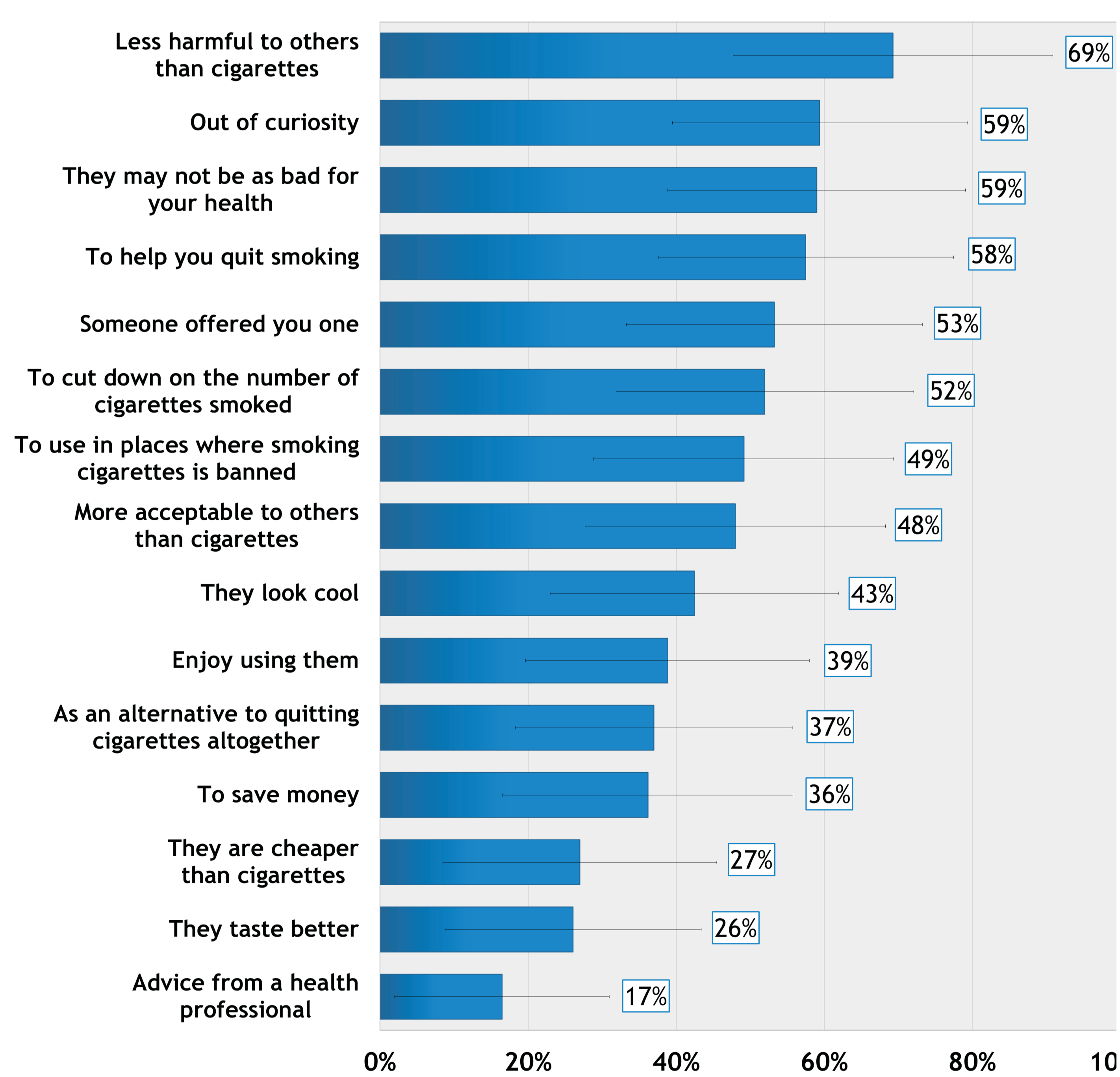
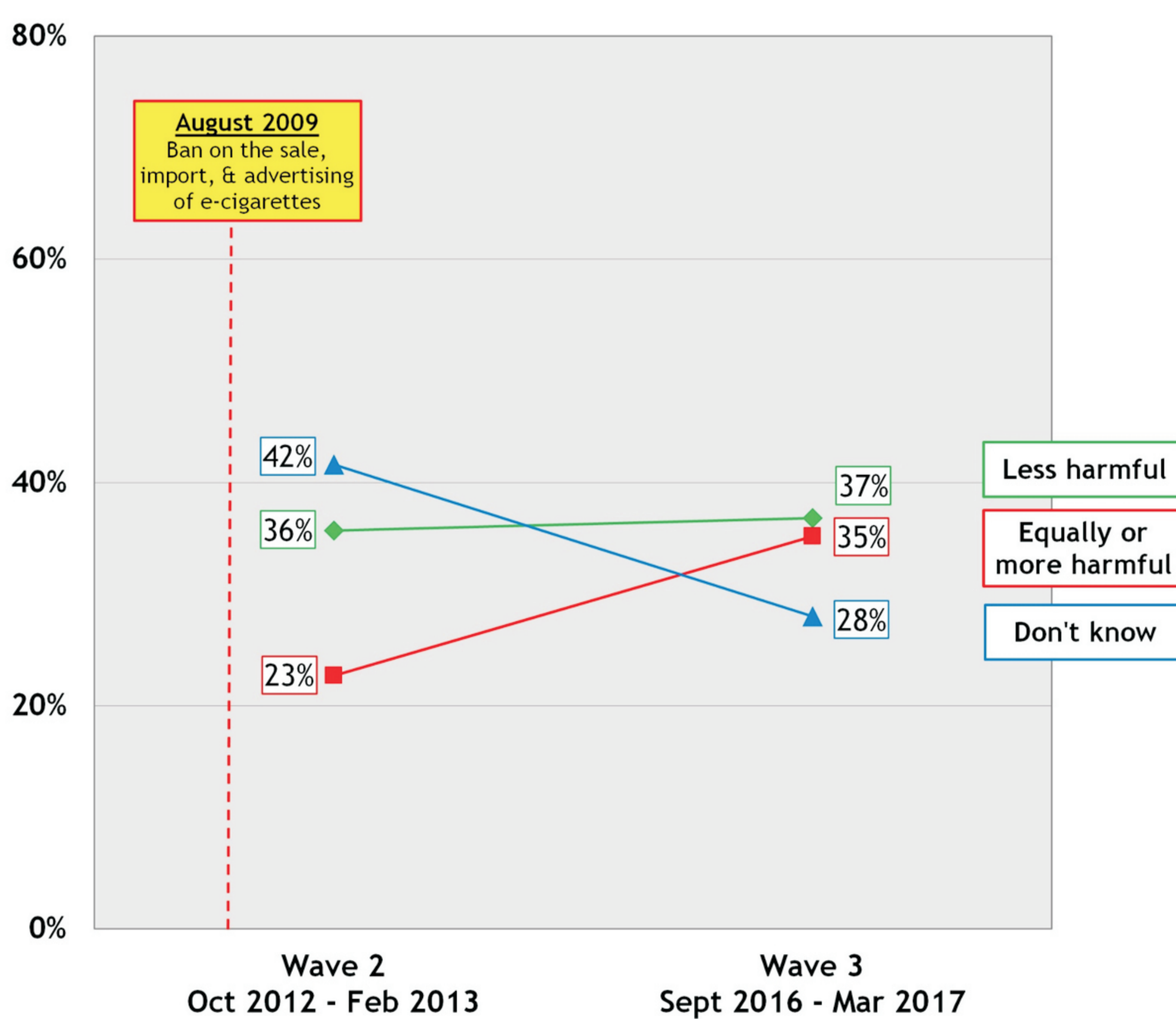


Figure 2. Percentage of smokers who believe that e-cigarettes are less harmful or equally/more harmful than regular cigarettes, by wave



CONCLUSIONS AND IMPLICATIONS

- Smokers who currently use ECs most commonly use them to reduce harm to others (69%), to reduce harm to their own health (59%), and to help them to quit smoking (58%) (see Figure 1).
- More smokers now have an opinion about the relative harmfulness of ECs. Between 2012-13 and 2016-17, there was a significant decrease in the percentage of smokers who "don't know" about the relative harmfulness of ECs (42% to 28%; p<.001). A greater percentage of smokers now incorrectly believe that ECs are equally or more harmful than cigarettes (23% to 35%; p<.001) (see Figure 2).
- Evidence to date demonstrates that ECs are less harmful than cigarettes, but there is ongoing debate about whether ECs can play a role in harm reduction and what kind of regulatory measures are most beneficial.