



International Tobacco Control  
Policy Evaluation Project

# Use of e-cigarettes, reasons for use, and perceptions of harms among Malaysian smokers: Findings from the 2011-2014 ITC Malaysia Surveys

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# Introduction: ITC Malaysia (MY) Survey

- Prospective, longitudinal cohort study of adult (aged  $\geq 18$ ) smokers conducted from 2005 to 2014
- Six waves of data collection (Wave 1: 2005; Wave 6: 2013-2014)
- Stratified multi-stage sampling design within regions/states (Kedah, Penang, Selangor, Terengganu, Johor, Sabah, Sarawak)
- Data collected using face-to-face (Waves 1 to 3) and telephone interviewing methods (Waves 4 to 6) by the National Poison Centre, Universiti Sains Malaysia research team
- At each wave, the sample was replenished to replace respondents who dropped out with newly recruited smokers



The Malaysian government is currently in the process of strengthening and expanding policies and regulations of all tobacco and nicotine products.

In particular, understanding a broad range of specific topics on the use, reasons for use, and perceptions of harmfulness of e-cigarettes among Malaysian smokers is critical.



This study examined key aspects of e-cigarettes (awareness and prevalence of use, reasons for use, and perception of harmfulness) among adult Malaysian smokers.

Data come from two waves of the ITC Malaysia Survey

- Wave 5 (2011-12)
- Wave 6 (2013-14)



# Methods: Outcome Measures

- Awareness of EC: ever heard of e-cigarettes (ECs) or not
- Ever tried ECs
- Currently use ECs: not at all, < weekly, at least weekly
- Reasons for using ECs:
  - Quit smoking
  - ECs less harmful than cigarettes
  - Cut down/reduce number of cigarettes smoked
  - When unable to smoke because of restrictions
  - Taste
- Perceived harm of ECs compared to cigarettes



Logistic regression models to estimate adjusted percentages that control for sex, age, and cigarette smoking status

- Wave-specific estimates
- Generalized estimating equations to account for respondents present in both survey waves
- Analysis accounted for sampling design and sampling weights
- Bonferroni correction to adjust for multiple comparisons
- SAS-callable SUDAAN (Version 11.0.3)

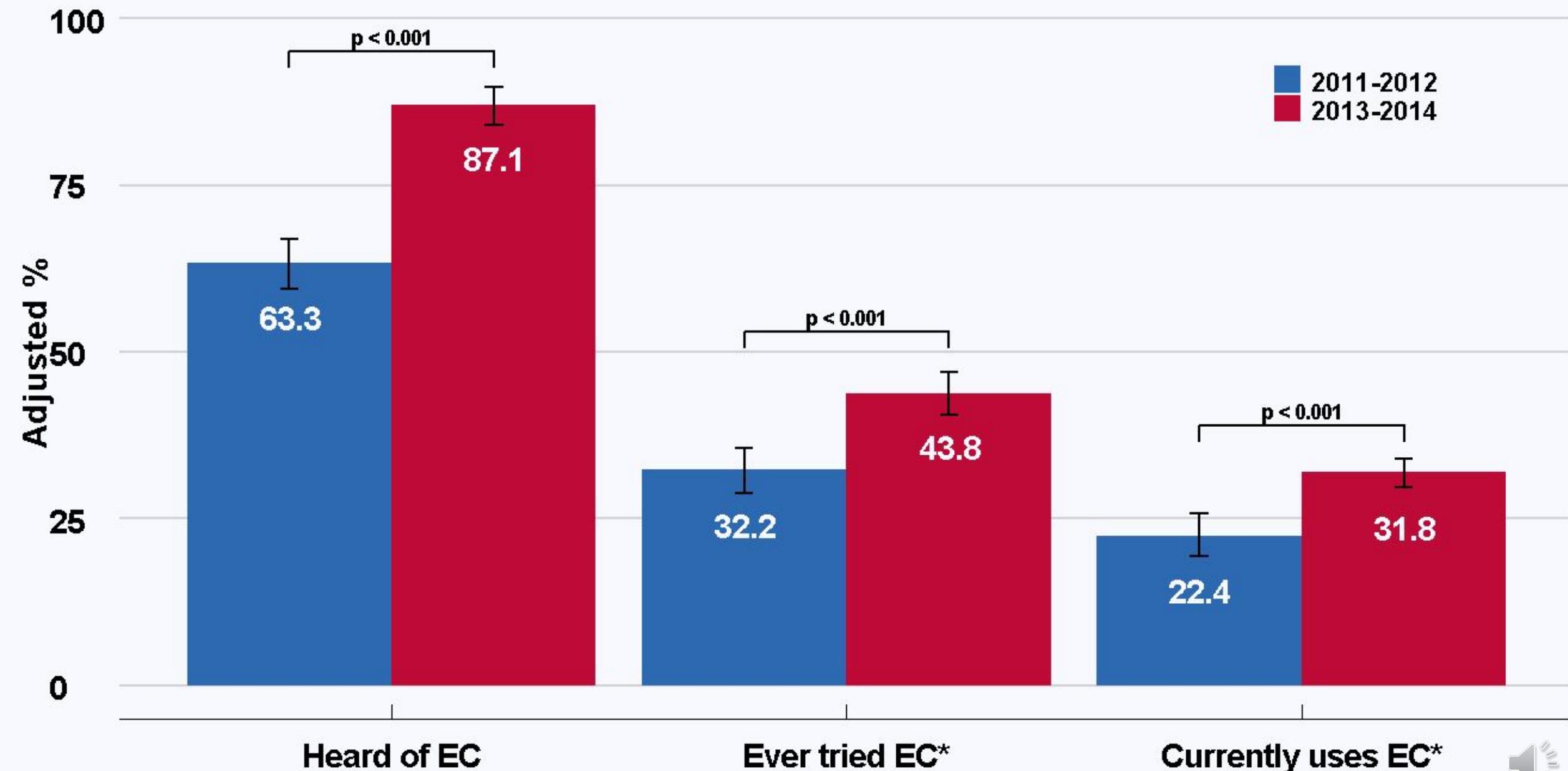


# Results: Sample Characteristics (unweighted)

	Wave 5 (2011-2012)	Wave 6 (2013-2014)
Total respondents (n)	(1992)	(1990)
% Urban	62.4	63.3
% Male	98.9	99.0
% 18-24 years	41.3	44.4
% 25-39 years	32.3	33.0
% 40-54 years	19.5	17.4
% 55+ years	6.8	5.2
% Re-contact respondent	75.0	74.2
% Daily smoker	81.7	80.4
% Non-daily smoker	6.8	4.8
% Former smoker	11.5	14.9



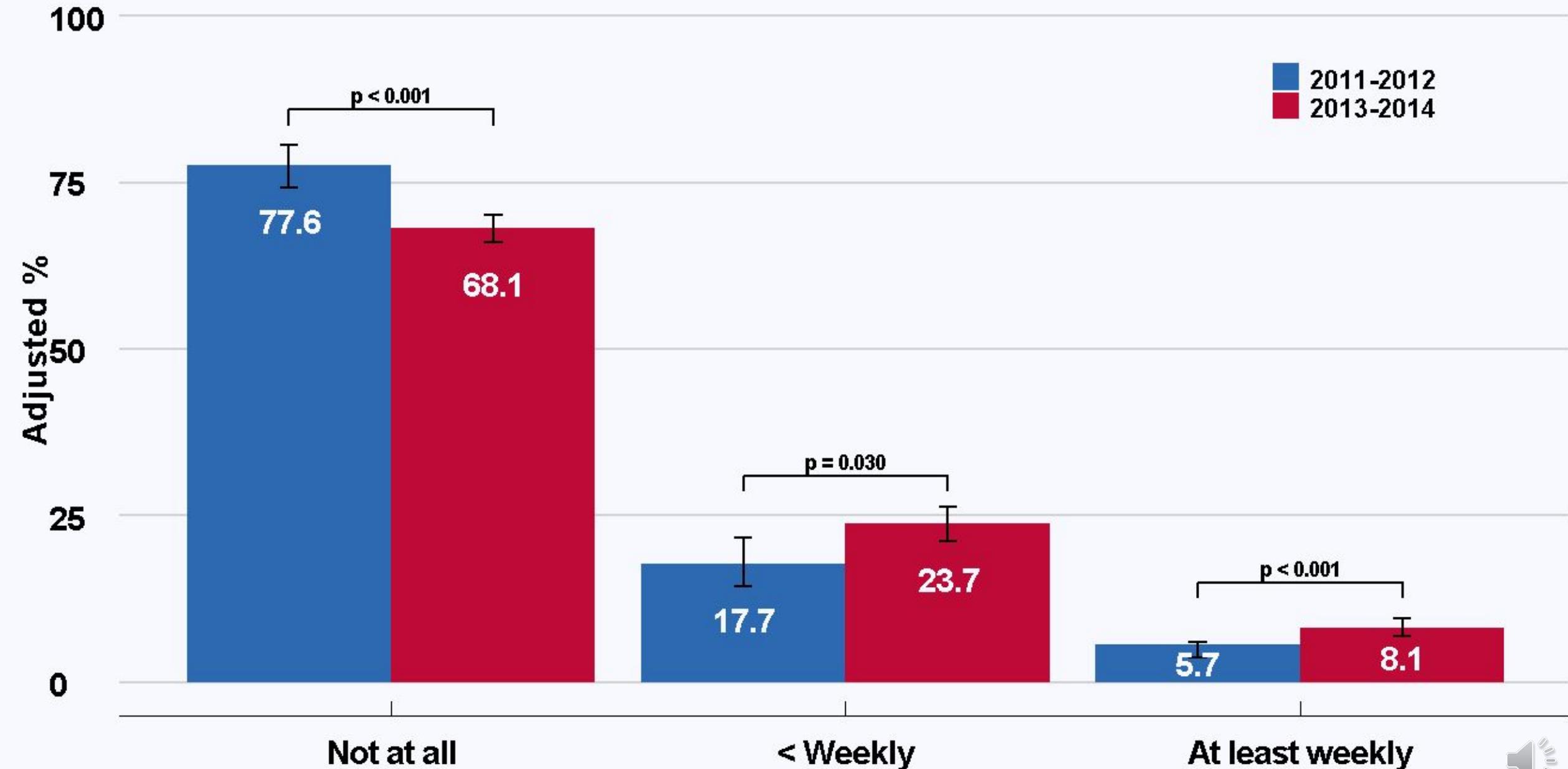
# Awareness and use of e-cigarettes among Malaysian smokers



\*Among smokers who were aware of e-cigarettes

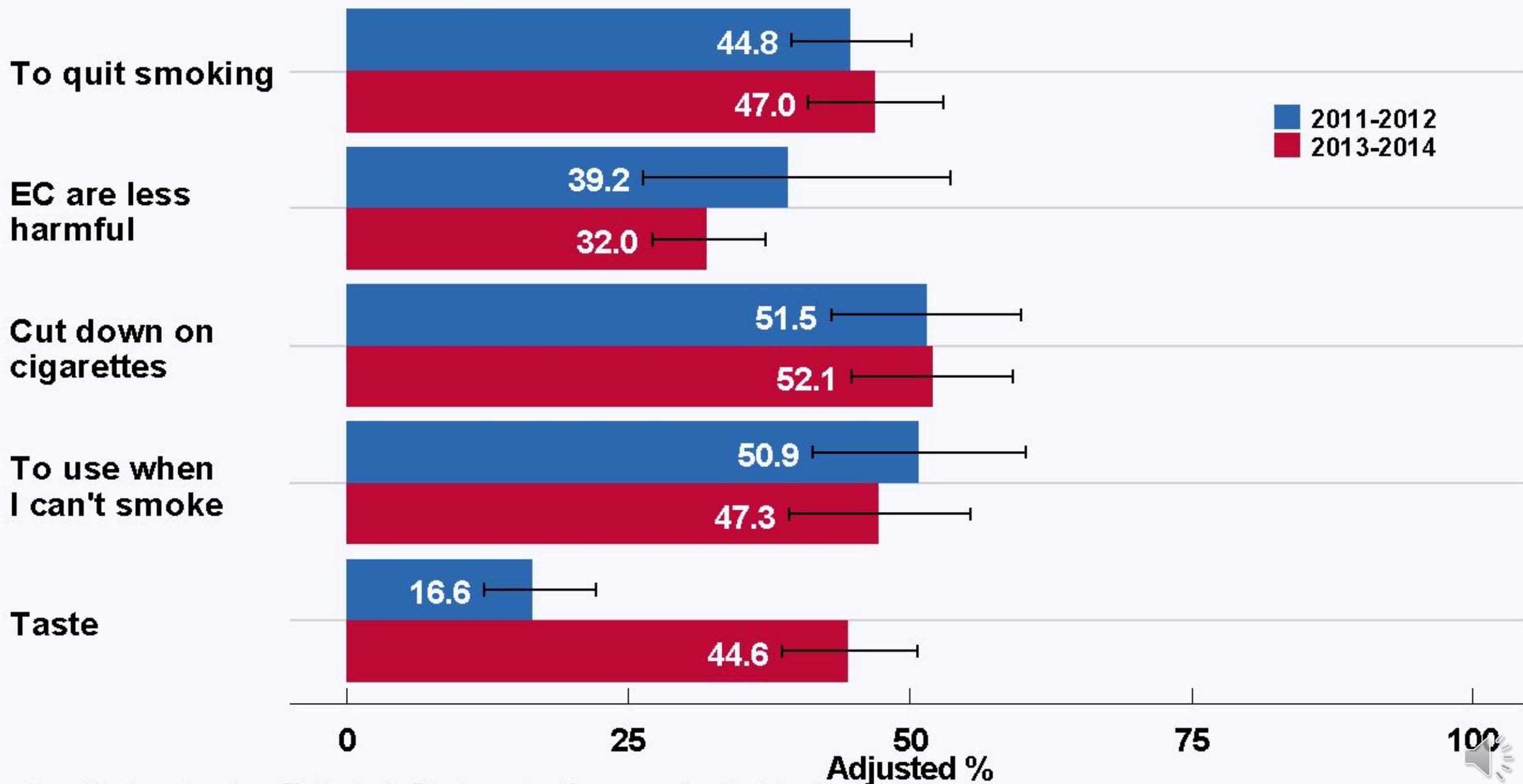


# Percentage of Malaysian smokers\* using e-cigarettes



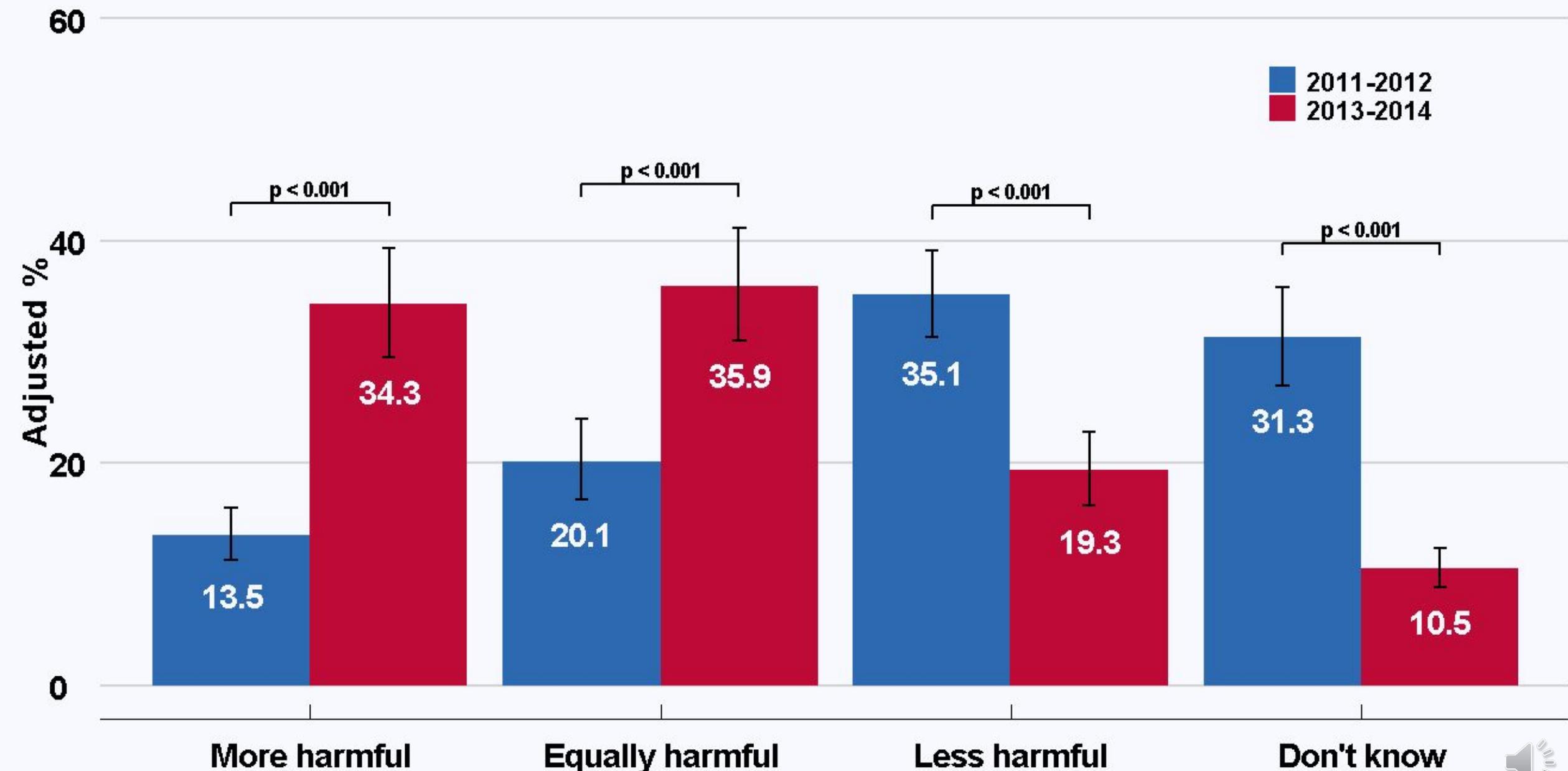
\*Among smokers who were aware of e-cigarettes

# Reasons for using e-cigarettes\*



\*Among Malaysian smokers who use EC at least weekly. Estimates are adjusted for age group and smoking status only.

# Perceptions of the harmfulness of e-cigarettes\*



\*Among smokers who were aware of e-cigarettes. Estimates are adjusted for age group and smoking status only.



- Awareness, trial, and use of e-cigarettes increased among Malaysian smokers from 2011-12 to 2013-14
  - Smokers using e-cigarettes: increased from 22% to 32%
  - Smokers using e-cigarettes at least once/week: increased from 6% to 8%
- Most common reasons for using e-cigarettes in both years:
  - Cut down on number of combustible cigarettes (52%)
  - When unable to smoke due to restrictions (47%)
  - To quit smoking (47%)
- Smokers were much more likely to believe that e-cigarettes are as harmful or more harmful than cigarettes in 2013-2014 (70%) than in 2011-2012 (34%)



There is a need to continue to track the use of e-cigarettes and reasons for use in Malaysia, where use of e-cigarettes has been high, compared to other Asia Pacific countries.



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# ITC Project Research Organizations

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