

# E-cigarettes: the latest evidence from UK surveys

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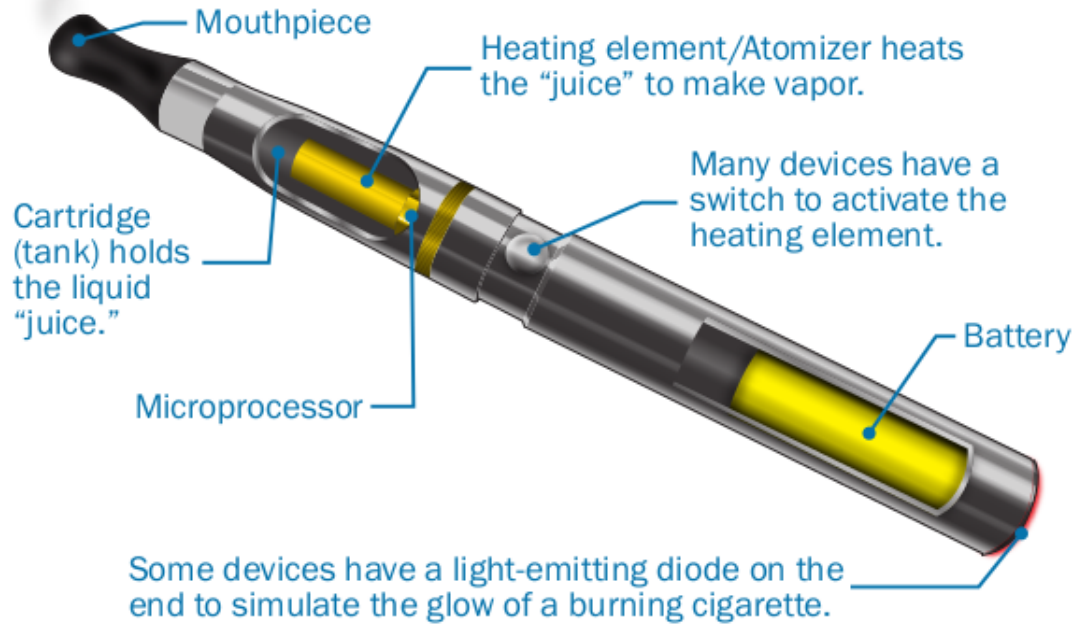
UCL: Jamie Brown, Robert West

Data collected by YouGov and IPSOS Mori

# Outline

- Background: E-cigarettes, surveys
- Who is using, what, how and why (not)
- Harm perception
- Policy and support

# E-cigarettes / vaping devices



No tobacco  
No combustion



# Controversy

## E-cigarettes

## Vaping: e-cigarettes safer than smoking, says Public Health England

Government body says vaping can make 'significant contribution to endgame of tobacco' and raises concerns about length of licensing process

James Meikle

Wednesday 19 August  
2015 06:57 BST



Public Health  
England

Protecting and improving the nation's health

## E-cigarettes: an evidence update A report commissioned by Public Health England

### Authors:

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Dentistry Queen Mary, University of London  
UK Centre for Tobacco & Alcohol Studies



# One UK newspaper, 4<sup>th</sup> Nov

The Times

## Times apologises for claiming tobacco firms funded e-cigarette research

Five anti-smoking scientists could still sue newspaper over articles saying they accepted cash from companies



Jasper Jackson

@JaspJackson

Smoking

## Vaping does not help people stop smoking, says WHO report

Critics say World Health Organisation report is a backward step that will hamper fight to cut tobacco-related deaths



Sarah Boseley  
Health editor

Friday 4 November 2016  
17:00 GMT

## COMMENTARY ON WHO REPORT ON ELECTRONIC NICOTINE DELIVERY SYSTEMS AND ELECTRONIC NON-NICOTINE DELIVERY SYSTEMS

Britton, Bauld, McNeill

<http://ukctas.net/pdfs/UKCTAS-response-to-WHO-ENDS-report-26.10.2016.pdf>

E-cigarettes

## No smoke without fire: e-cigarette explodes in man's pocket - video

Source: Jukin Media

Friday 4 November 2016  
09:51 GMT



Science

Sifting the evidence

## Why can't scientists agree on e-cigarettes?

As a Cochrane review of e-cigarettes is published, its author asks why vaping devices have divided the academic community

Jamie Hartmann-Boyce

Wednesday 14 September 2016  
07:45 BST



< Shares 841

Comments 79

Save for later



Electronic cigarettes for smoking cessation (Review)

Hartmann-Boyce J, McRobbie H, Bullen C, Begh R, Stead LF, Hajek P

Authors' conclusions:

There is evidence from two trials that ECs help smokers to stop smoking in the long term compared with placebo ECs...

# Surveys

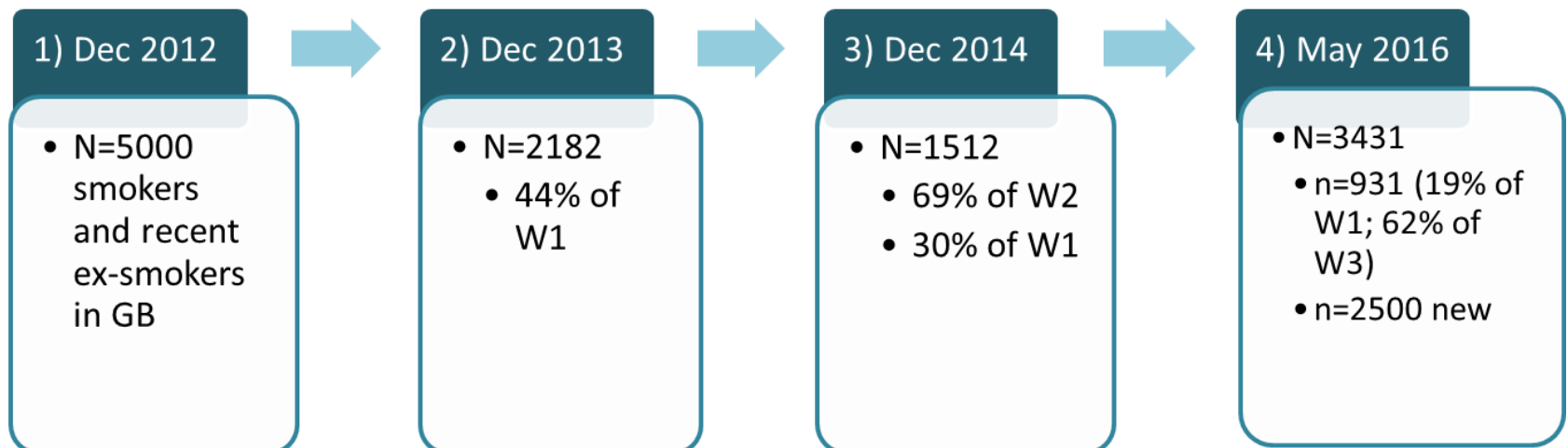


## ASH Smokefree GB

- Annual cross-sectional online surveys, conducted in March/April by YouGov
- Adult (18+): N=12,157. Figures weighted and representative of all GB Adults.
- Youth (11-18): N=2,331. Figures weighted, representative of all GB 11-18 year olds
- Ash.org.uk factsheets

## King's online panel

- Longitudinal, Ipsos Mori

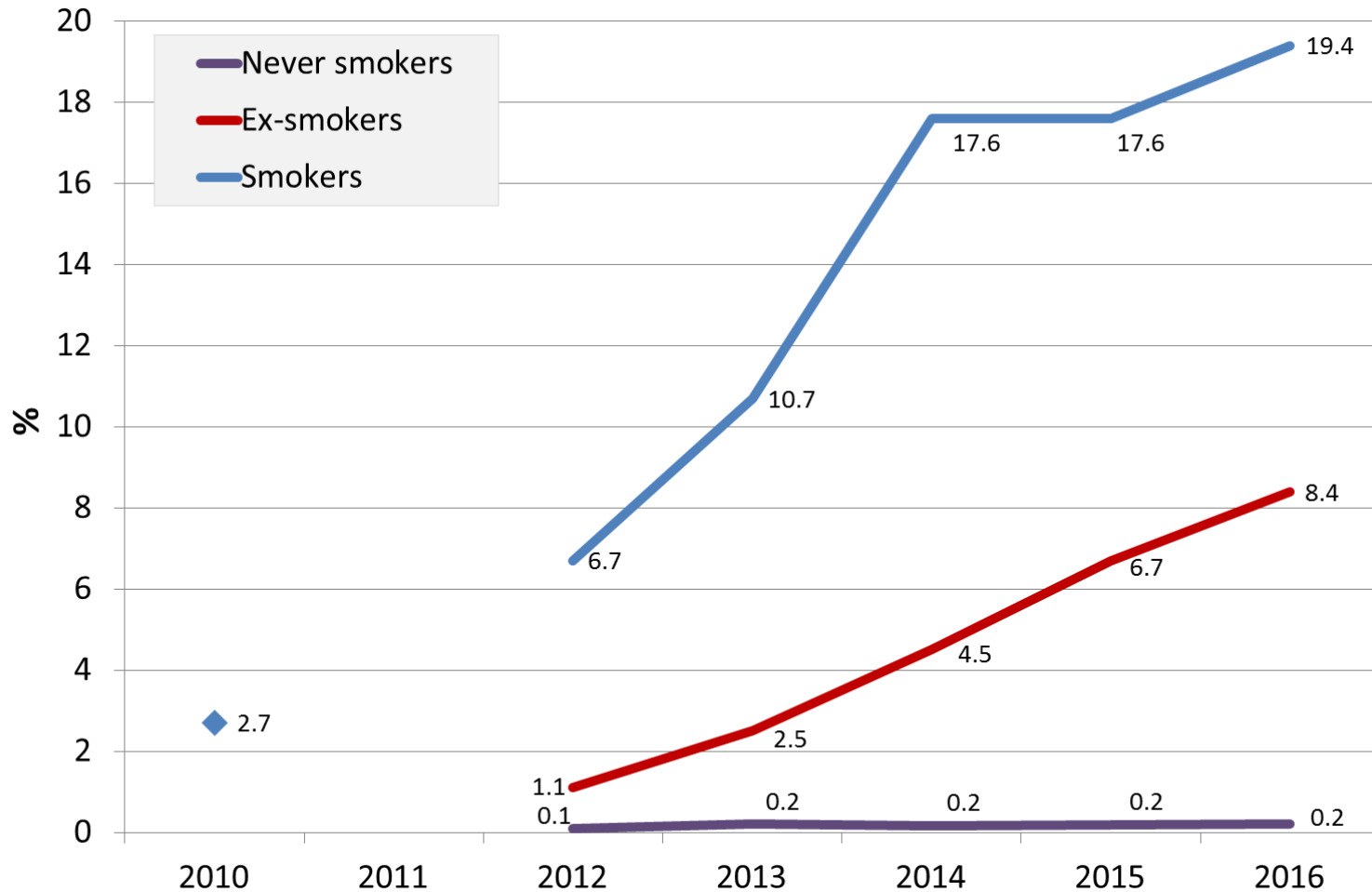


# Outline

- Background: E-cigarettes, surveys
- **Who is using, what, how and why (not)**
- Harm perception
- Policy and support

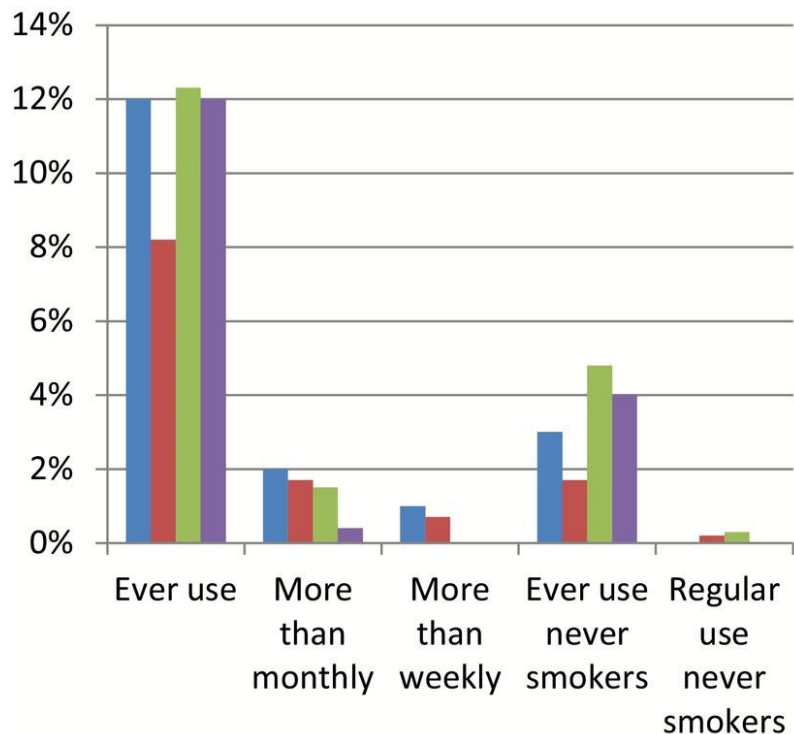


# Prevalence of e-cigarette use, GB adults



2016: 2.8 million adult users (5.7%), almost exclusively smokers and ex-smokers (GB smoking prevalence is around 17%)

# E-cigarette use in teenagers, UK surveys

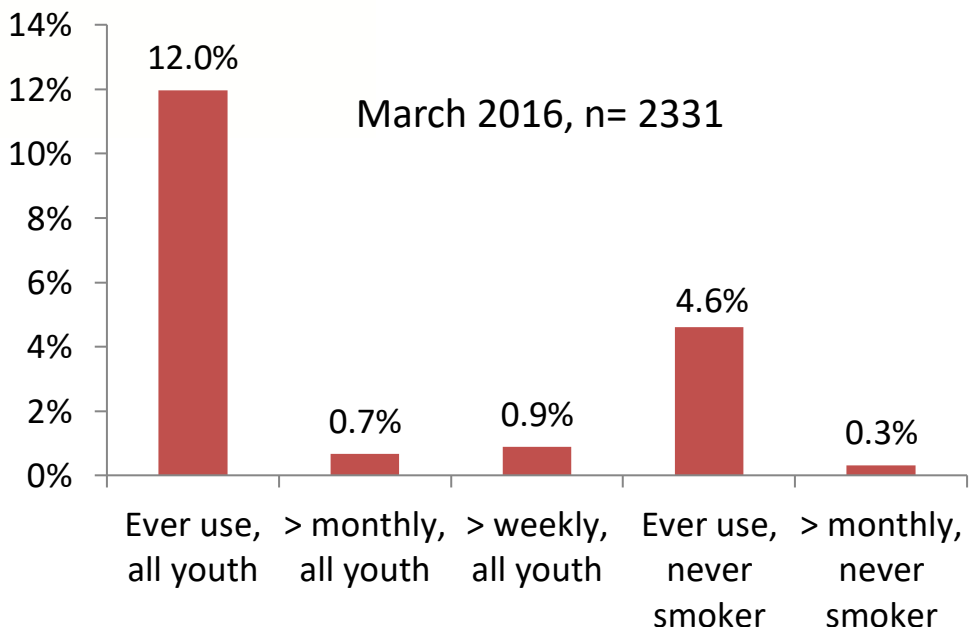


Bauld et al, 2015

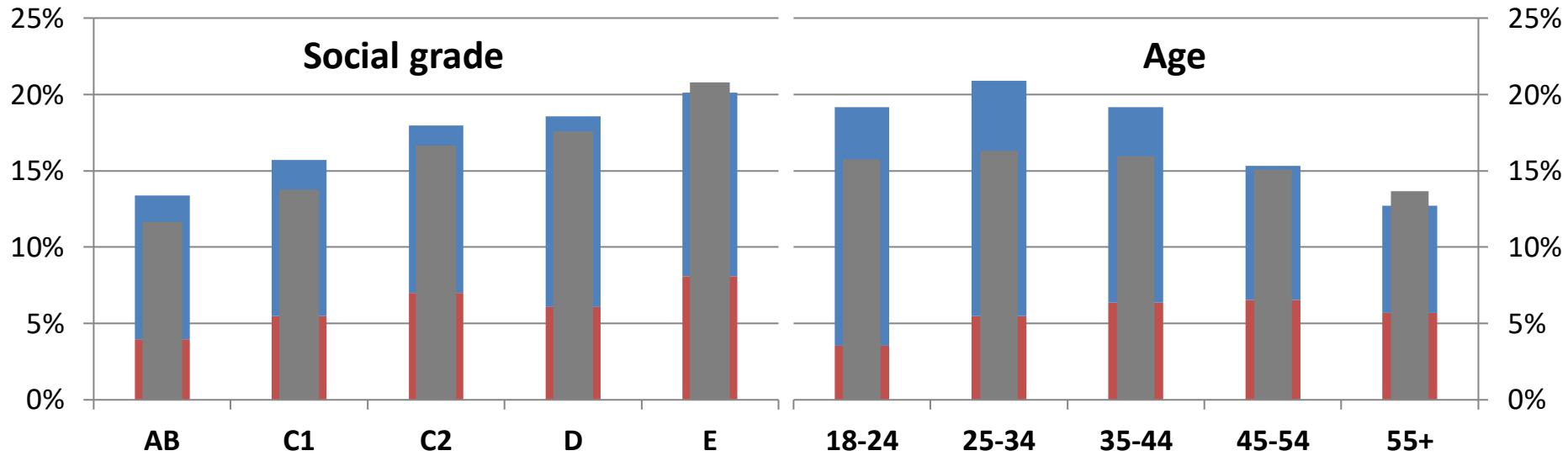
- YTPS UK, 11-16, Aug-Sept 2014
- ASH/YouGov GB 11-18, March 2014
- HBSC Wales, 11-16, Nov13-Feb14
- SALSUS Scotland, 13-15 2013/14

Experimentation, but little or no regular use in non-smokers

75% of those who ever tried did not try in the last month



# Socio-demographics and smoking prevalence (GB adults)



- I have tried e-cigarettes but do not use them (anymore)
- I have tried e-cigarettes and still use them
- Smoking prevalence

	Men	Women
<b>Tried</b>	10.9%	10.5%
<b>Using</b>	6.1%	5.4%

# Types (GB adults)

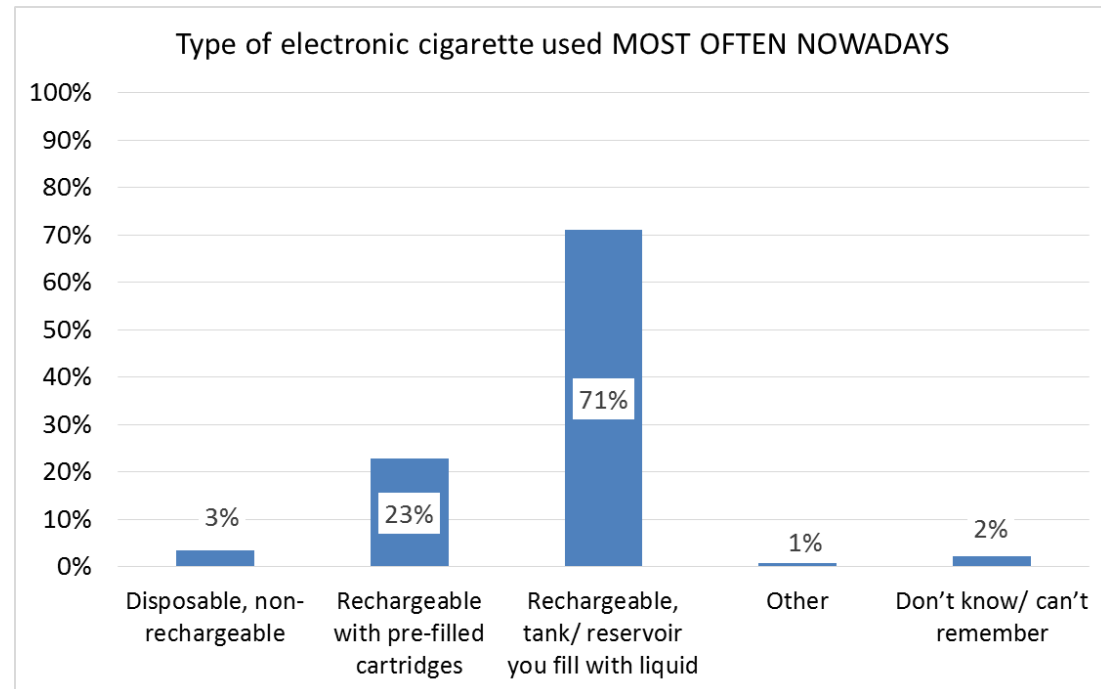
'cigalike'



Refillable with cartridges



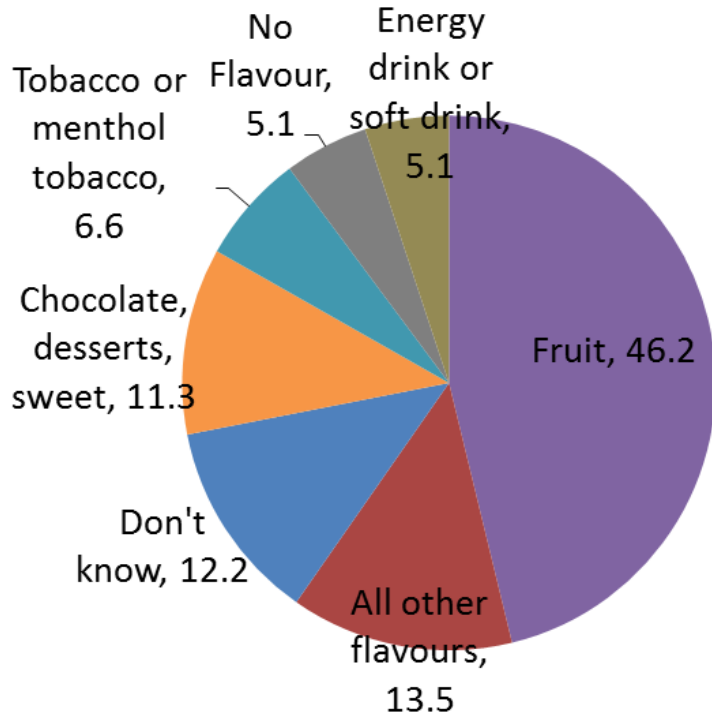
tanks



Initially, cigalikes were popular, now mainly tanks

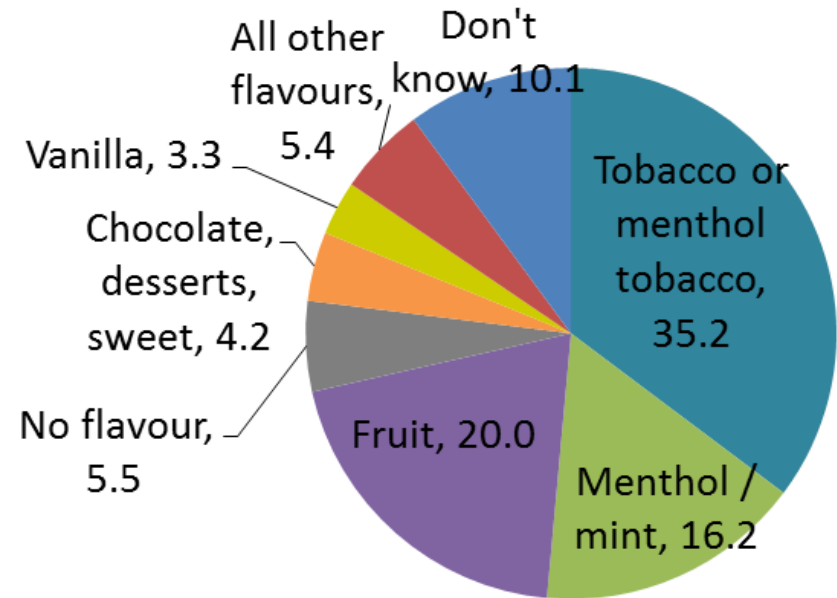
# Flavours

## GB Youth



unweighted base n=318 ever and current users

## GB Adults



unweighted base n=1808 ever and current users

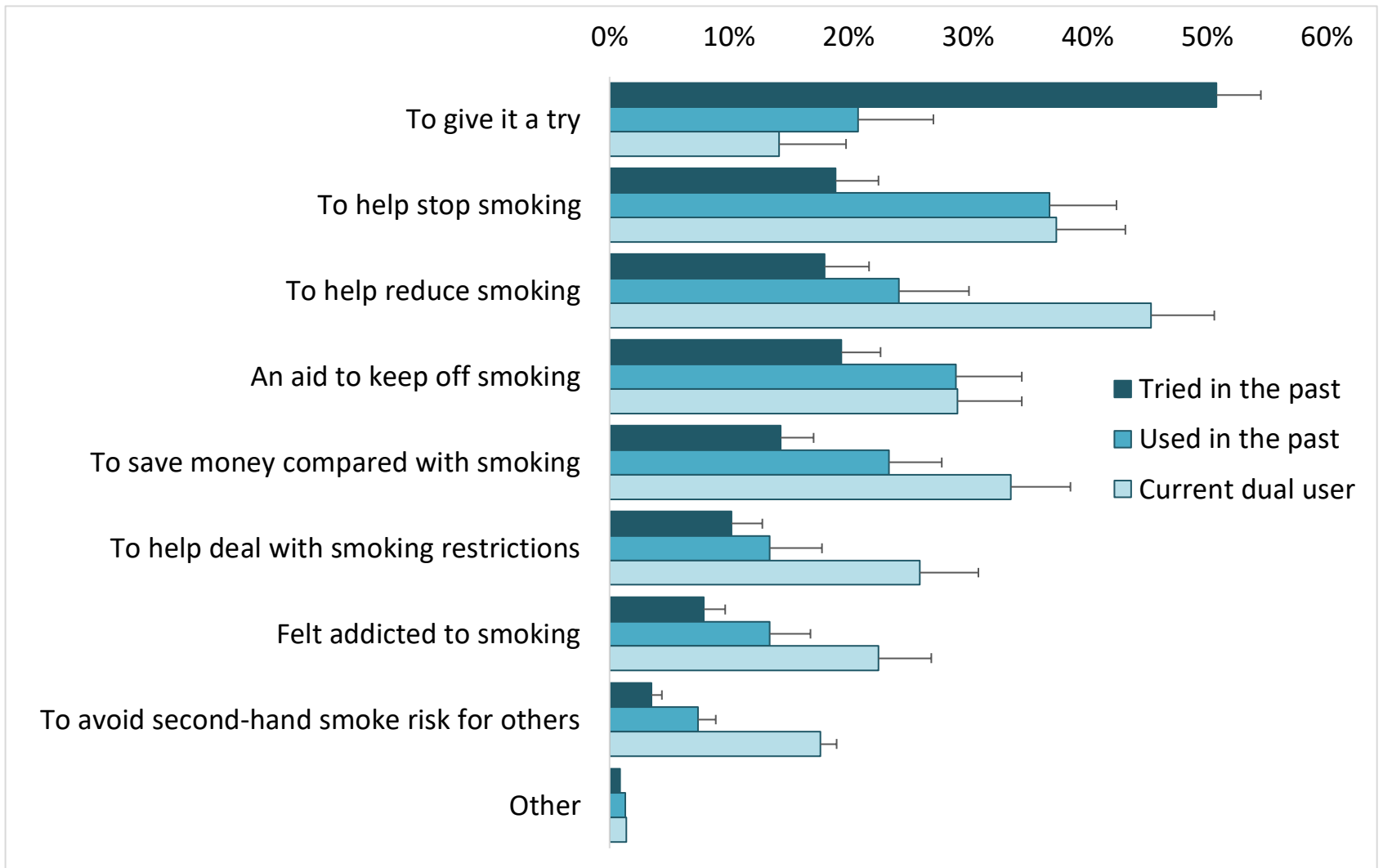
# Smokers by e-cigarette experience

<b>N=1,489 smokers</b>	<b>Never used n=536 (36%)</b>	<b>Tried n=433 (29.1%)</b>	<b>Used in the past n=231 (15.5%)</b>	<b>Current dual users n=289 (19.4%)</b>	<b>Comparison statistic</b>
<b>Female</b>					
<b>Age group</b>					
<b>18-24</b>					
<b>25-34</b>					
<b>35-44</b>					
<b>45-54</b>					
<b>55+</b>					
<b>Motivation to stop smoking &lt; 3 months</b>					
<b>High dependence (HSI ≥ 4)</b>					
<b>Type first used</b>					
<b>Disposable</b>					
<b>Rechargeable</b>					
<b>Tank</b>					
<b>Don't know/ Other</b>					

# Smokers by e-cigarette experience

N=1,489 smokers	Never used n=536 (36%)	Tried n=433 (29.1%)	Used in the past n=231 (15.5%)	Current dual users n=289 (19.4%)	Comparison statistic
Female	54.1	56.6	53.7	51.2	$\chi^2(3)=2.06$ , p=.56
Age group					
18-24	9.0	<b>14.5</b>	6.5	<b>3.1</b>	$\chi^2(12)=51.6$ , p<.001
25-34	7.6	<b>12.0</b>	6.1	8.3	
35-44	14.4	17.1	16.0	14.2	
45-54	20.3	19.9	18.6	21.8	
55+	48.7	<b>36.5</b>	52.8	52.6	
Motivation to stop smoking < 3 months	7.8	10.4	8.2	<b>15.9</b>	$\chi^2(3)=14.57$ , p=.002
High dependence (HSI $\geq$ 4)	16.6	18.7	<b>27.3</b>	17.0	$\chi^2(3)=13.11$ , p=.004
Type first used					
Disposable		19.9	17.3	16.6	$\chi^2(6)=38.29$ , p<.001
Rechargeable		39.5	43.3	38.8	
Tank		<b>30.3</b>	36.4	<b>43.3</b>	
Don't know/ Other		<b>10.4</b>	3.0	<b>1.4</b>	

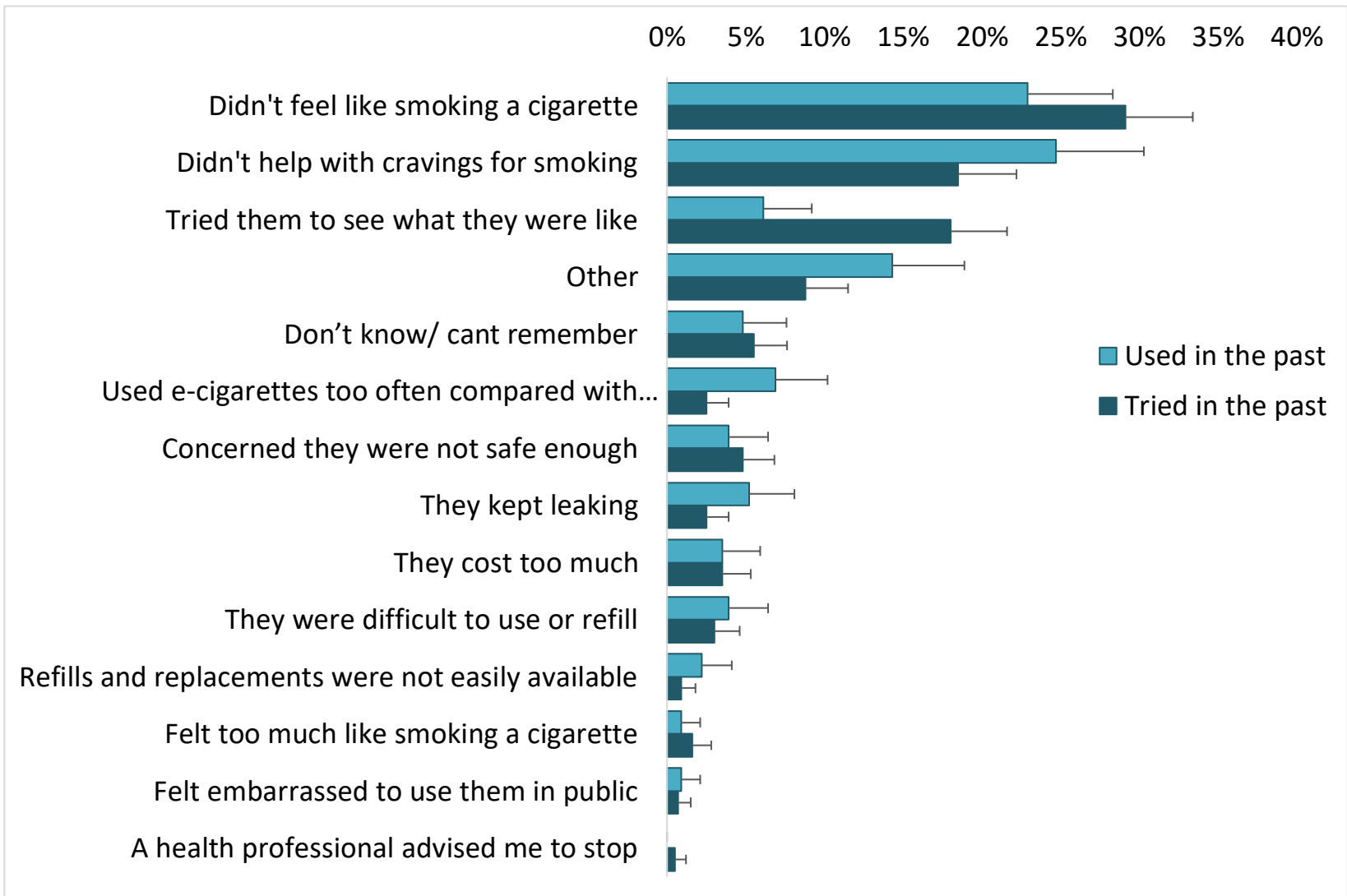
# Reasons for using



Smokers' reasons for using e-cigarettes by e-cigarette experience, n=953



# Reasons for discontinuing (while smoking)



Smokers' reasons for not continuing e-cigarette use, n=664

Simonavicius et al,  
under review

# Outline

- Background: E-cigarettes, surveys
- Who is using, what, how and why (not)
- **Harm perception**
- Policy and support

# Quiz

Smoking kills what proportion of long-term smokers?

A. <10%

B. 10-29%

C. 30-49%

✓ D. 50-70%

What portion of the health risks of smoking comes from nicotine in cigarettes?

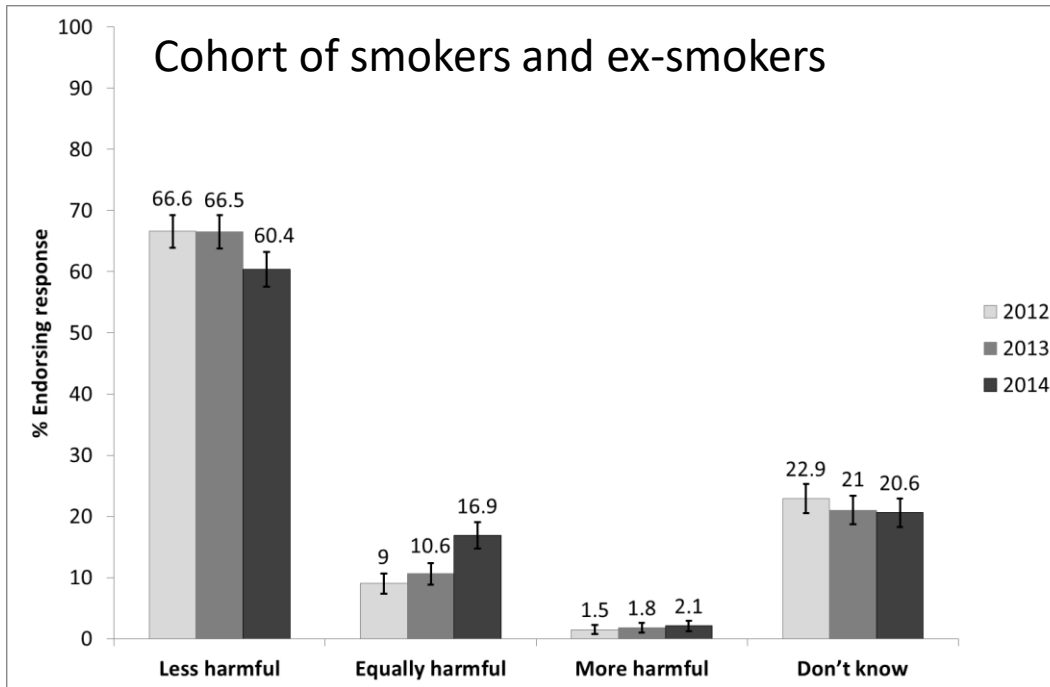
None/very small

Some, but well under half

Around half the risk

Nearly all the risk

# Perceived relative harm



Compared with regular cigarettes, electronic cigarettes are...?

## Reminder

- Smoking kills about 2/3 of long-term users
- Close to 100k deaths in GB every year due to smoking

A year later:

- Non-users believing them to be less harmful more likely to have used
  - Misperceptions can impede harm reduction
- Baseline ex-smokers less likely to have started than smokers

Brose et al, 2015

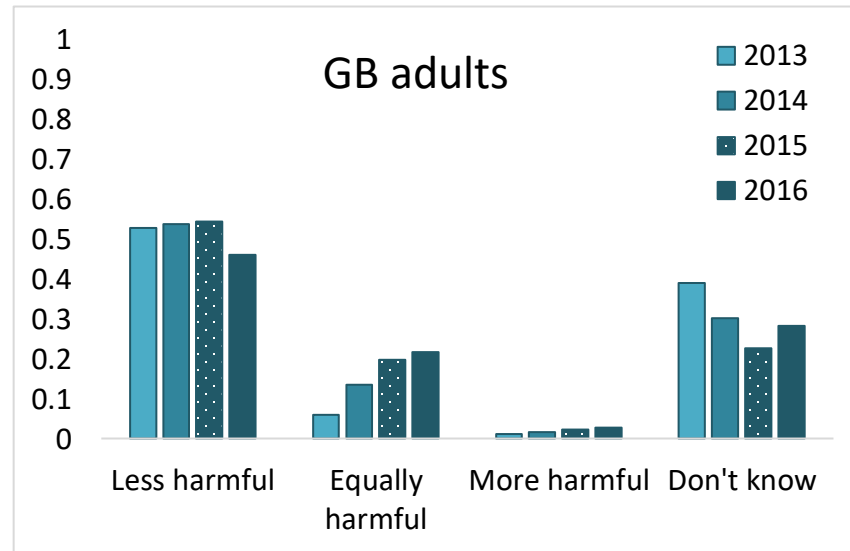
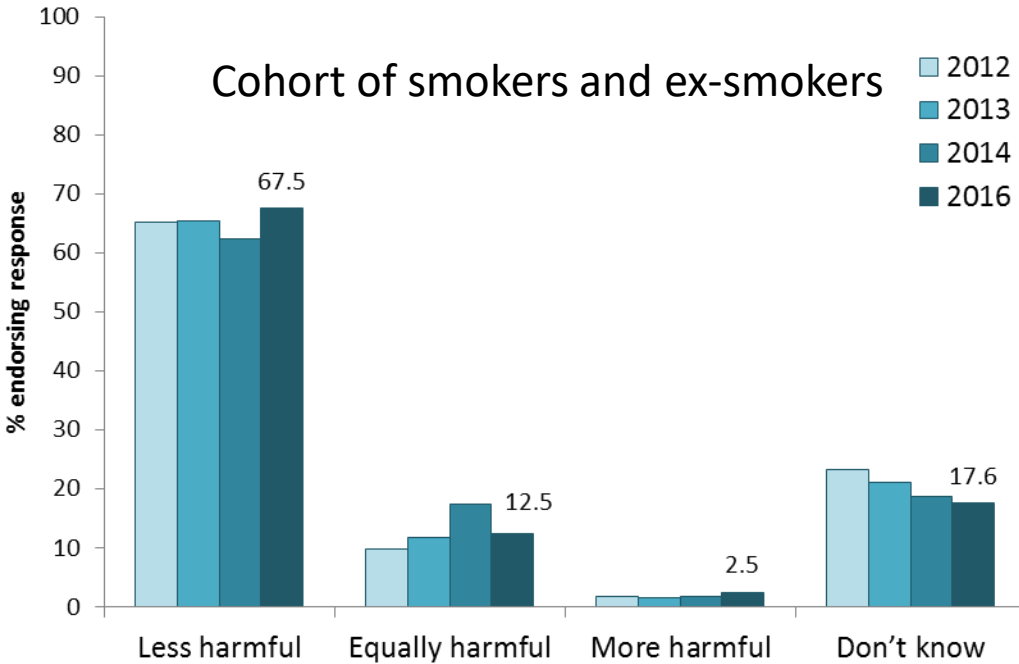
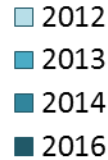
## Top reasons (>20%) for smokers who have never tried e-cigarettes

- Concerned they are not safe enough
- Do not want to substitute one addiction for another
- Do not think they would help me quit or cut down

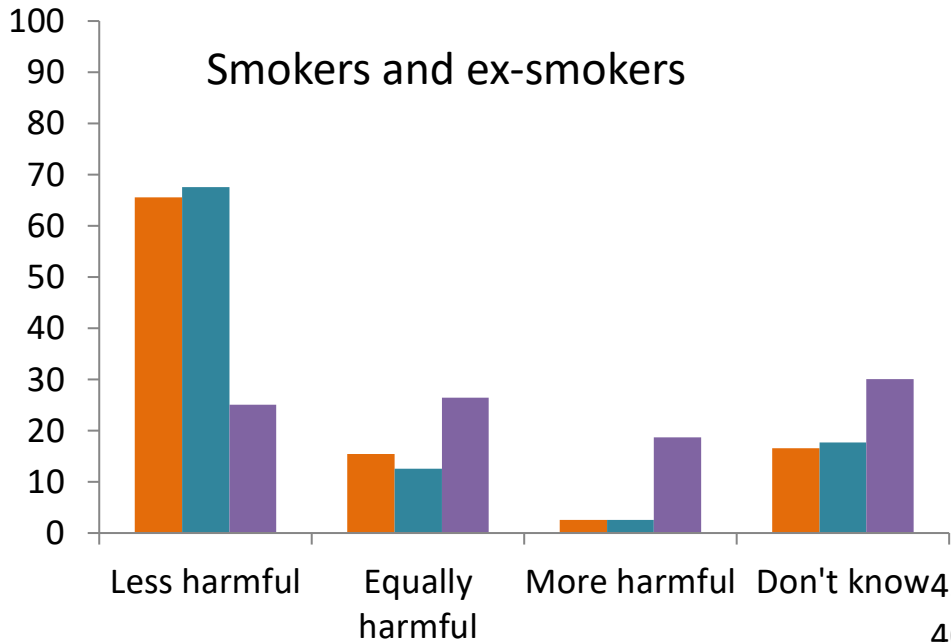
# Perceived relative harm

Compared with regular cigarettes, electronic cigarettes are...?

Cohort of smokers and ex-smokers



# Perceived relative harm and nicotine

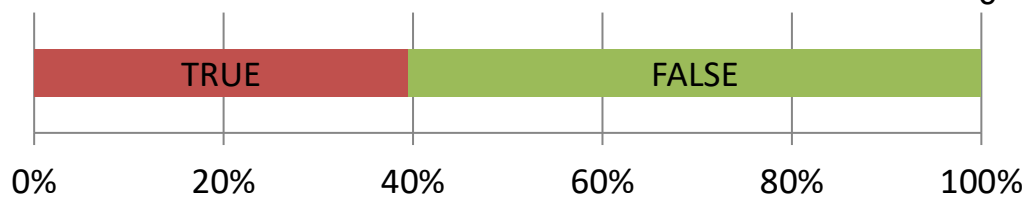


- NRT compared with smoking
- E-cigarettes compared with smoking
- E-cigarettes compared with NRT

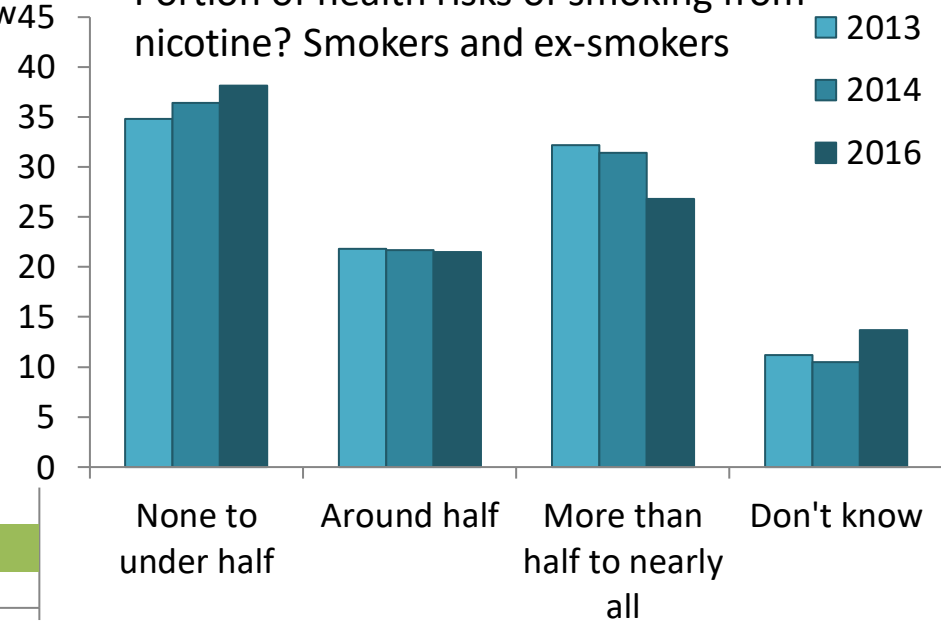
Nicotine risk: none to very small

- 11.5% of cohort
- 8% of GB adults (and 19% 'some but well under half')

The nicotine in cigarettes is the chemical that causes most of the cancer



Portion of health risks of smoking from nicotine? Smokers and ex-smokers



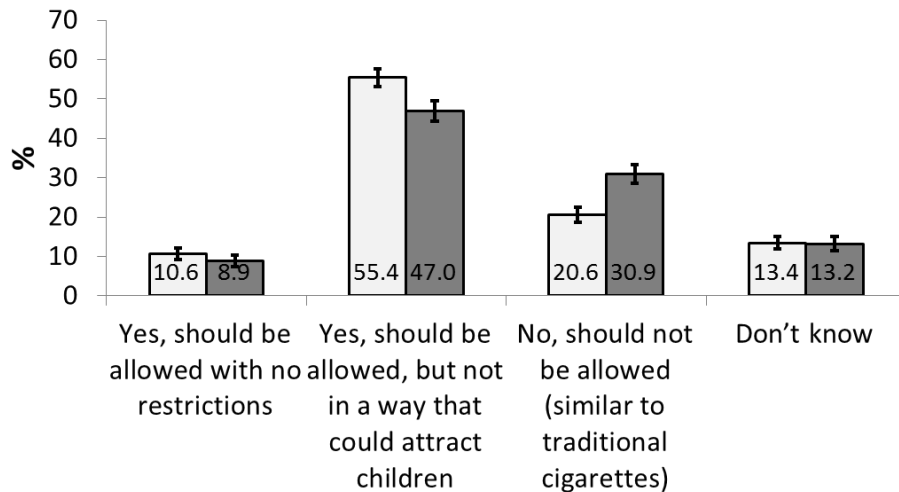
- 2013
- 2014
- 2016

# Outline

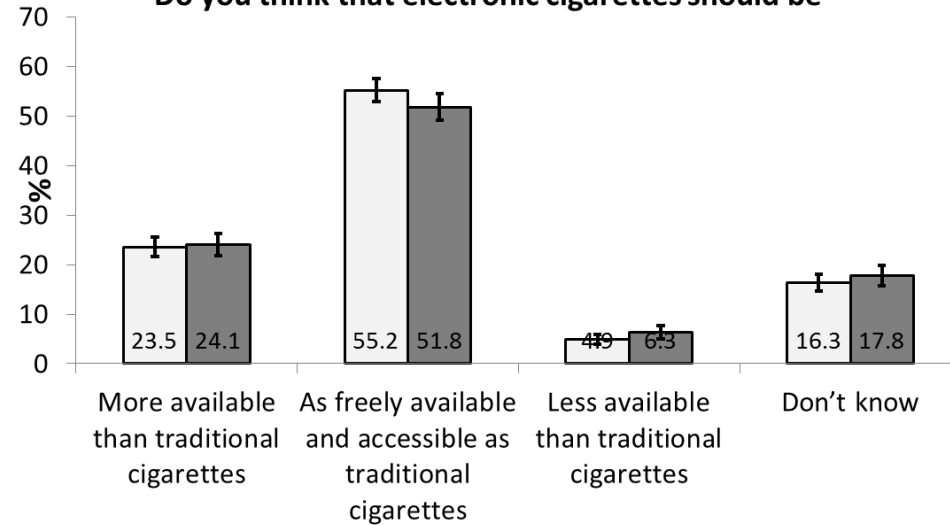
- Background: E-cigarettes, surveys
- Who is using, what, how and why (not)
- Harm perception
- **Policy and support**

# Policy support (smokers and ex-smokers)

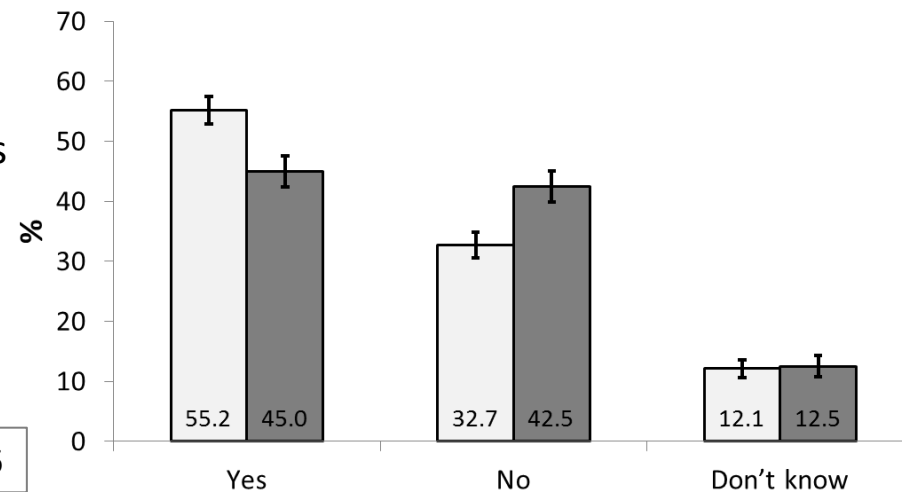
Do you think that electronic cigarette companies should be allowed to advertise e-cigarettes?



Do you think that electronic cigarettes should be



Do you think people should be allowed to use e-cigarettes where smoking is not allowed?

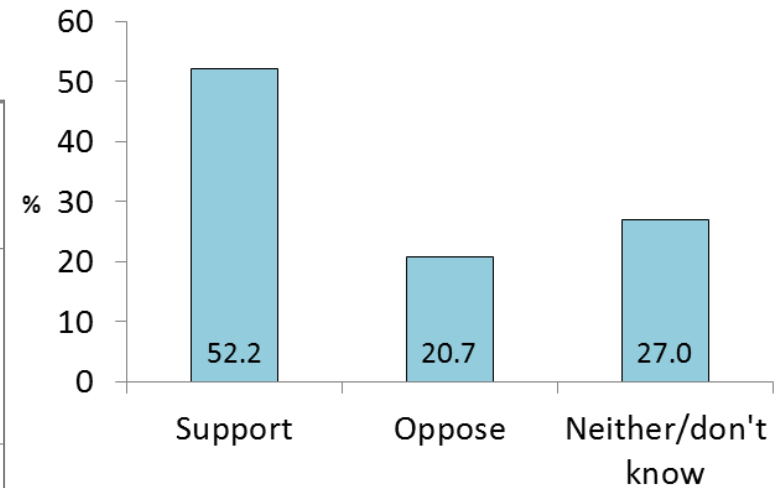
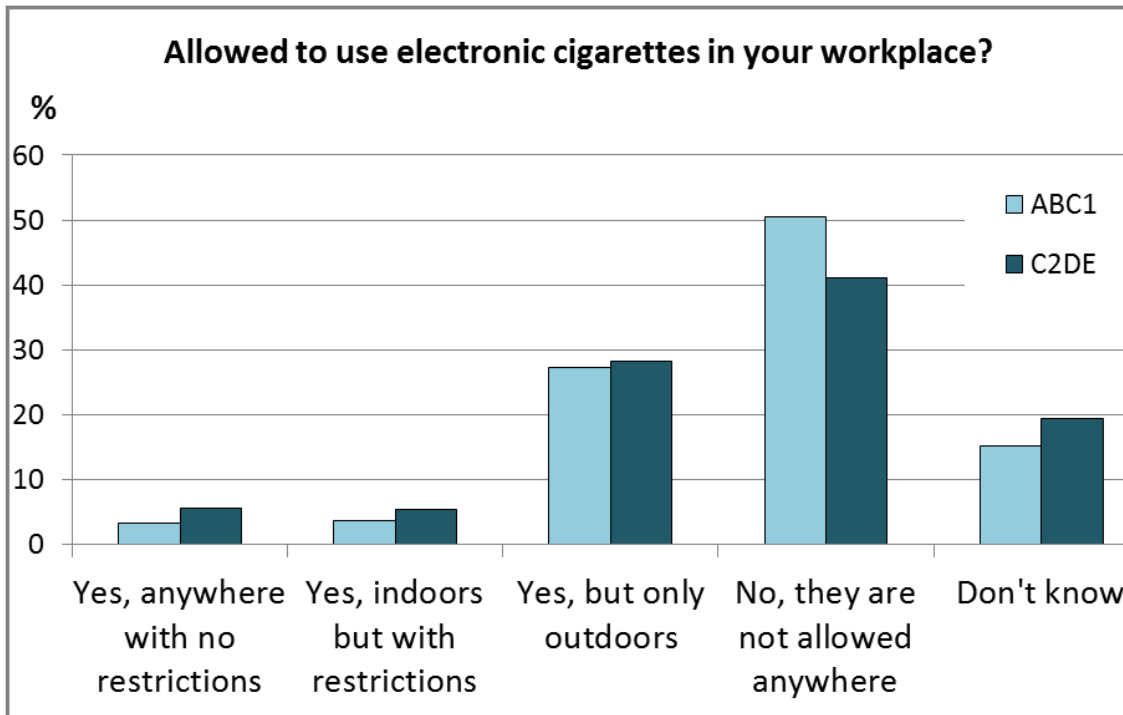


- 1848 smokers and ex-smokers provided 3279 observations, GEE analysis
- Those with less accurate perceptions of relative harm and nicotine more likely to support restrictions
- Experience of e-cigarettes associated with less support for restrictions
- Current smokers more supportive of use of e-cigarettes in smoke-free places and unrestricted advertising than ex-smokers



# Policy (GB adults)

## Smoke-free laws should be extended to include e-cigarettes



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England

Protecting and improving the nation's health

**Use of e-cigarettes in public places and workplaces**

Advice to inform evidence-based policy making

# New regulations

- Include limiting nicotine strength in liquids to 20mg/ml
- Also limitation to size of tanks and refill bottles, flavours

What strengths do you use? (n=1035 users)	%	n
No nicotine	7.9	83
8 mg/ ml	27.0	285
9 to 14 mg/ml	26.3	277
15 to 20 mg/ml	23.4	247
21 to 24 mg/ml	6.2	65
25 mg/ml or more	3.6	38
Don't know	11.8	124

Generally, this is the one they use most often (n=59/65 and 37/38)

- Effect of limitation on behaviour?
  - Use lower strength?
  - Buy from other sources?
  - Stop vaping?
  - Smoke instead?
  - Other?
- Asked about anticipated behaviour change in 2015
- Planning to follow up to ask about actual behaviour in 2016 when policies fully implemented

# Some key points

- About 6% of GB adults use e-cigarettes (vape), almost all smokers and ex-smokers
- Among youth, there is experimentation, often with fruit flavours, but no use among never-smokers
- Among adult smokers
  - Use is associated with higher motivation to stop smoking
  - Having stopped use is associated with higher dependence and that craving was not sufficiently addressed
  - Those who have never tried e-cigarettes cite concerns about safety and addiction as main reasons
  - Perceived harm relative to cigarettes is similar to NRT and knowledge about nicotine could be better
- Most workplaces restrict e-cigarette use
- A small majority of adults is in favour of banning e-cigarette use where smoking is not allowed and support may be growing
- Impact of new regulations remains to be seen