

Vaping in the UK and PHE and RCP reports

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Competing interests

- No tobacco industry, electronic cigarette company or pharma funding
- My funding comes from the public and voluntary sectors

Summary

- PHE and RCP reports
- Separating the drug from the delivery system
- Individual and population health risks
- Patterns of e-cigarette use in the UK
- Conclusions



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

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ed 28 April 2016)



Nicotine without smoke Tobacco harm reduction

A report by the Tobacco Advisory Group
of the Royal College of Physicians

April 2016

ANALYSIS

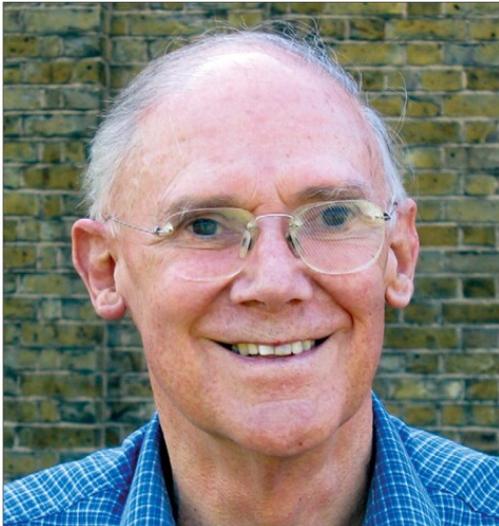


Nicotine without smoke—putting electronic cigarettes in context

John Britton and colleagues set out why a new Royal College of Physicians report supports the role of electronic cigarettes as part of a comprehensive tobacco control strategy

John Britton *professor of epidemiology*¹, Deborah Arnott *chief executive*², Ann McNeill *professor of tobacco addiction*^{1,3}, Nicholas Hopkinson *reader in respiratory medicine*⁴, Tobacco Advisory

Separating the nicotine from the smoke



Professor Michael Russell
1932- 2009

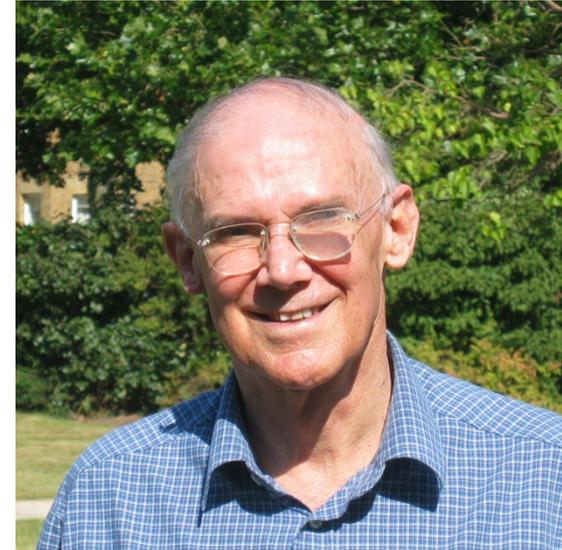


"Smokers smoke for the nicotine, but die from the tar"
Professor Mike Russell, Maudsley Smokers Clinic, 1979

The future of nicotine replacement

MICHAEL A. H. RUSSELL

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London SE5 8AF, UK*



Abstract

Following in the wake of progress forged by nicotine chewing gum, a new generation of nicotine replacement products will soon be available as aids to giving up smoking. These range from nicotine skin patches, which take 6–8 hrs to give very flat steady-state peak blood levels, to nicotine vapour inhalers which mimic the transient high-nicotine boli that follow within a few seconds of each inhaled puff of cigarette smoke. Other products undergoing clinical trials include a nasal nicotine spray and nicotine lozenges. It is argued here that it is not so much the efficacy of new nicotine delivery systems as temporary aids to cessation, but their potential as long-term alternatives to tobacco that makes the virtual elimination of tobacco a realistic future target. Their relative safety compared with tobacco is discussed. A case is advanced for selected nicotine replacement products to be made as palatable and acceptable as possible and actively promoted on the open market to enable them to compete with tobacco products. They will also need health authority endorsement, tax advantages and support from the anti-smoking movement if tobacco use is to be gradually phased out altogether.

Comparative health risks

CIGARETTE SMOKE

>7000 different chemicals

>69 cause cancer

Many others are toxic



NICOTINE

1 chemical

Neuroadaptive effects

V high levels (>500mg) it can be fatal

Highly addictive

Cancers

Cardiovascular disease

Respiratory disease

Adverse reproductive effects

Harm to others

Addictiveness
dependent on delivery

Theoretical, no evidence

Not a significant risk

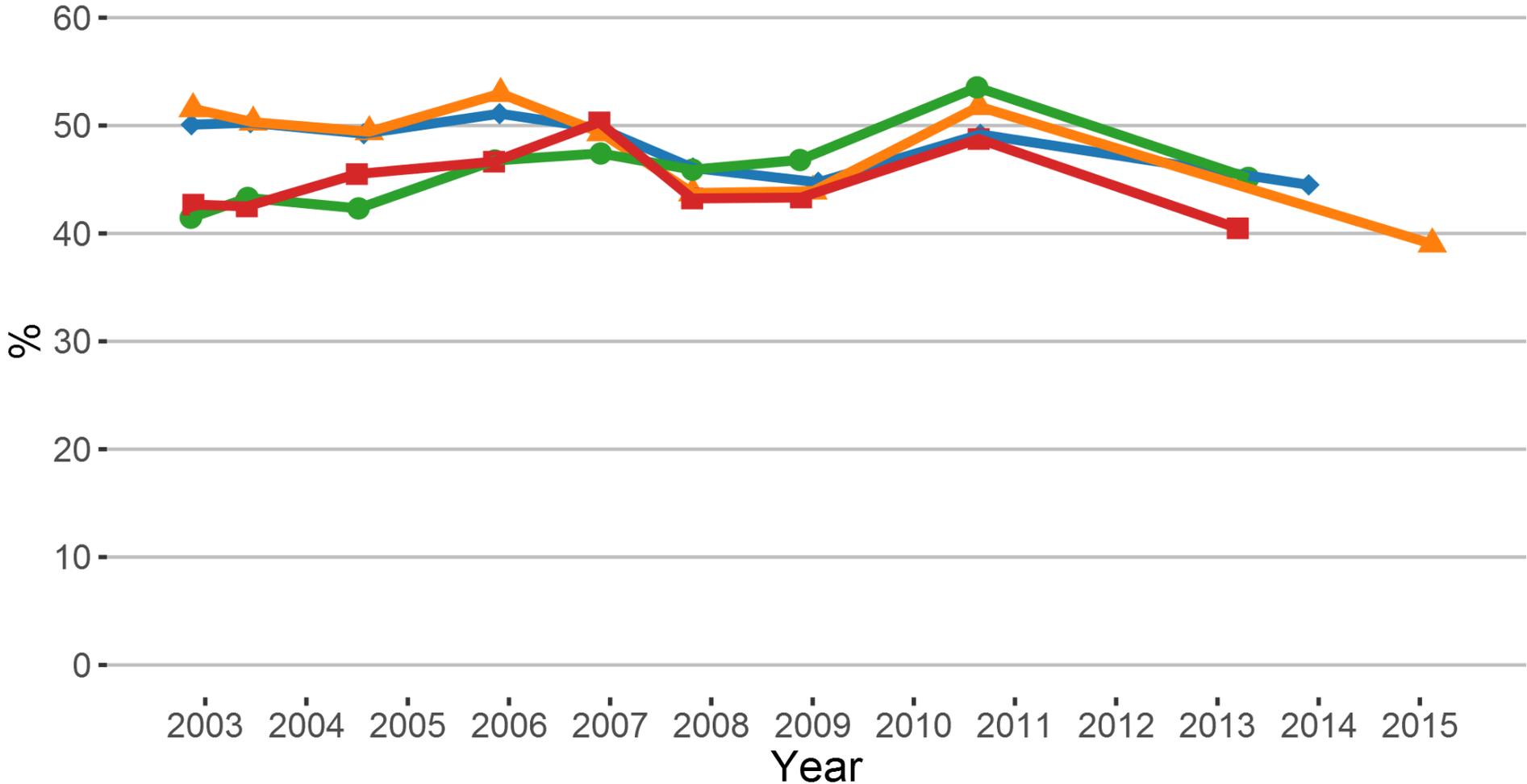
No

Potential, unclear

No

Nicotine in cigarettes does not cause cancer

CA US UK AU



International Tobacco Control Policy Evaluation Project 2003-2015

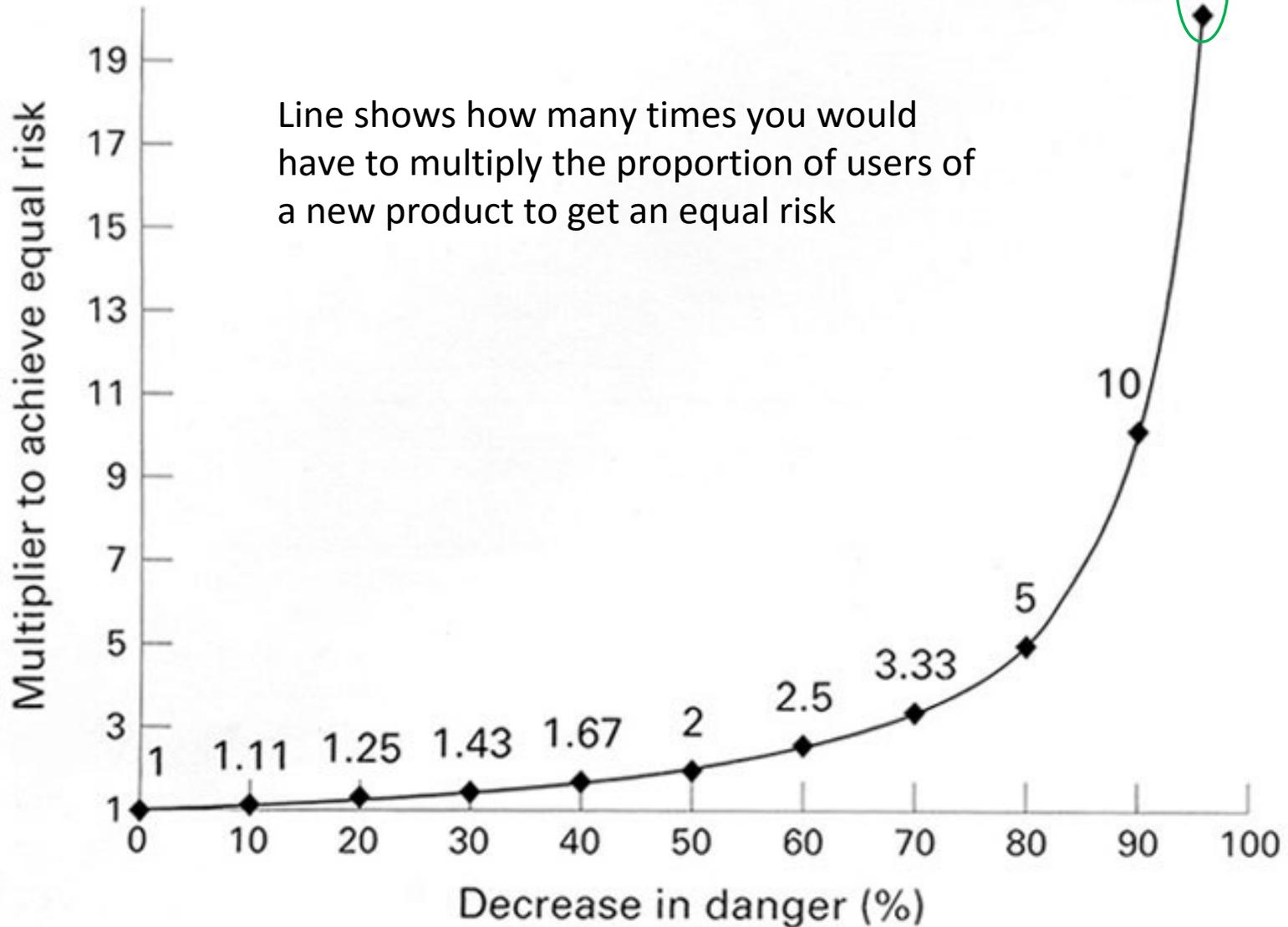
But what about *population* risks?

- Could attract **new users** to nicotine and then tobacco use
- Smokers could **switch** to new products, or reduce, rather than stop smoking completely
- Ex-smokers could take up the new products and then **relapse** to smoking

Smoking prevalence increases

But difficult because other interventions will impact smoking prevalence

Risk-use equilibrium



Nicotine harm continuum



Electronic cigarettes



Chewing tobacco



Snus



NRT



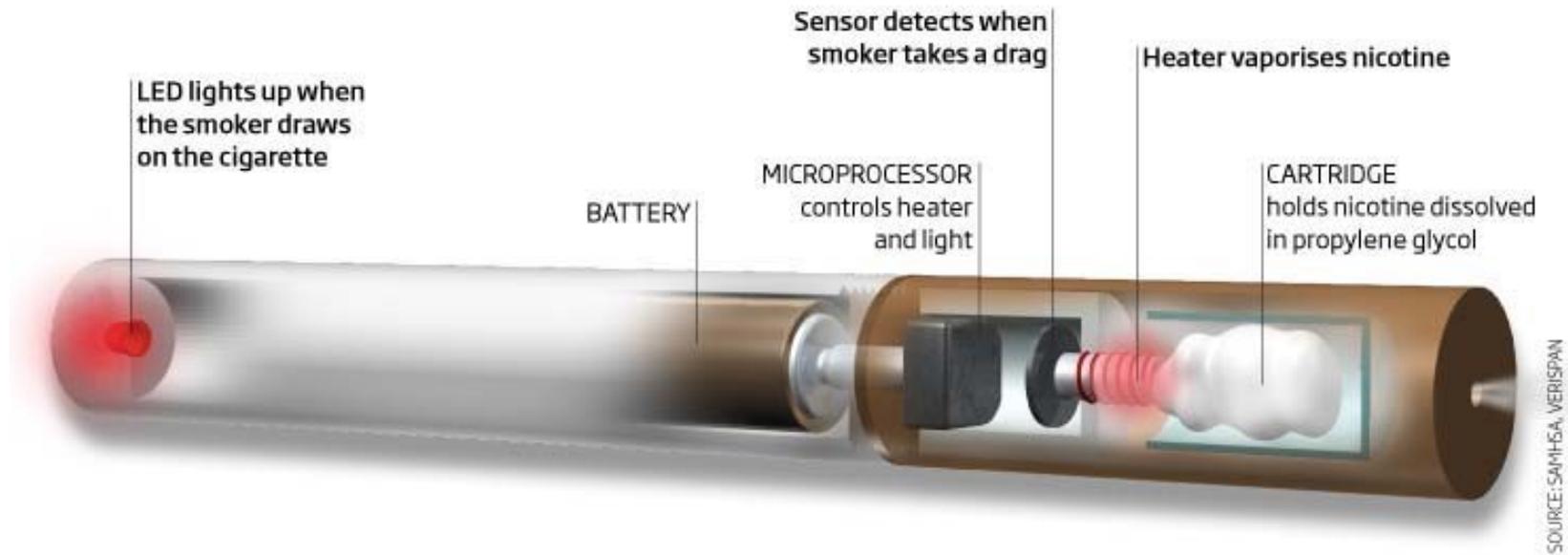
QUIT!

Most dangerous

Least Dangerous



Electronic cigarettes



<http://www.srnt.org/?page=WebinarArchive> Evidence into Policy: UK Approach to E-Cigarettes.

January 29, 2016

Rapid increase in e-cigarette use in 2012-4 among smokers

Nicotine & Tobacco Research, Volume 15, Number 10 (October 2013) 1737-1744

ORIGINAL INVESTIGATION

E-Cigarettes: Prevalence and Attitudes in Great Britain

Martin Dockrell BA¹, Rory Morrison BSc², Linda Bauld PhD³, Ann McNeill PhD⁴

¹Action on Smoking and Health, London, UK; ²Centre for Population Health Sciences, University of Edinburgh Medical School, UK; ³UK Centre for Tobacco Control Studies, Stirling Management School, University of Stirling, UK; ⁴UK Centre for Tobacco Control Studies, National Addiction Centre, Institute of Psychiatry, King's College London, London, UK

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Addictive Behaviors

ELSEVIER



Prevalence and characteristics of e-cigarette users in Great Britain: Findings from a general population survey of smokers

Jamie Brown^{a,b,*}, Robert West^{a,b,c}, Emma Beard^{a,b}, Susan Michie^{b,c,d}, Lion Shahab^{a,d}, Ann McNeill^{b,e}

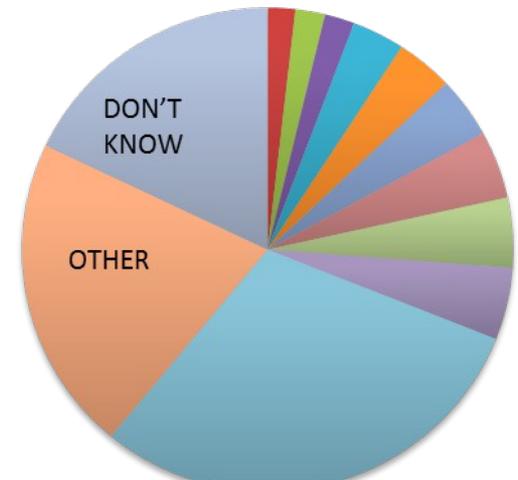
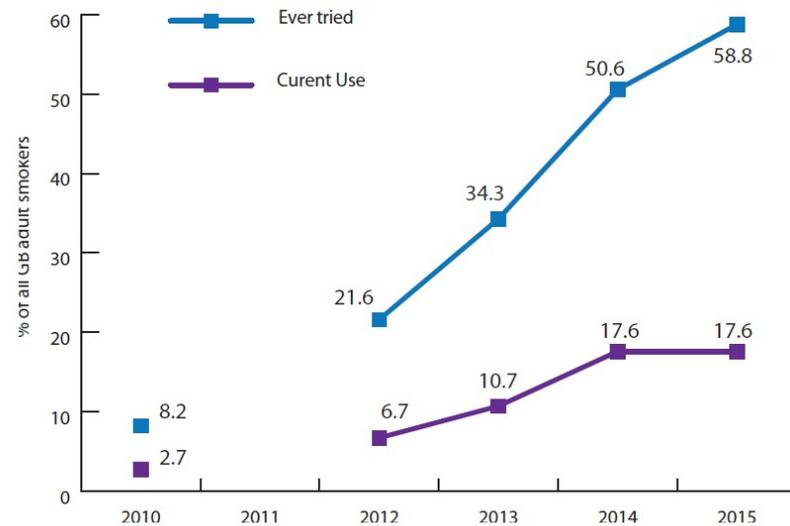
^a Cancer Research UK Health Behaviour Research Centre, University College London, UK

^b UK Centre for Tobacco and Alcohol Studies

^c National Centre for Smoking Cessation and Training, London, UK

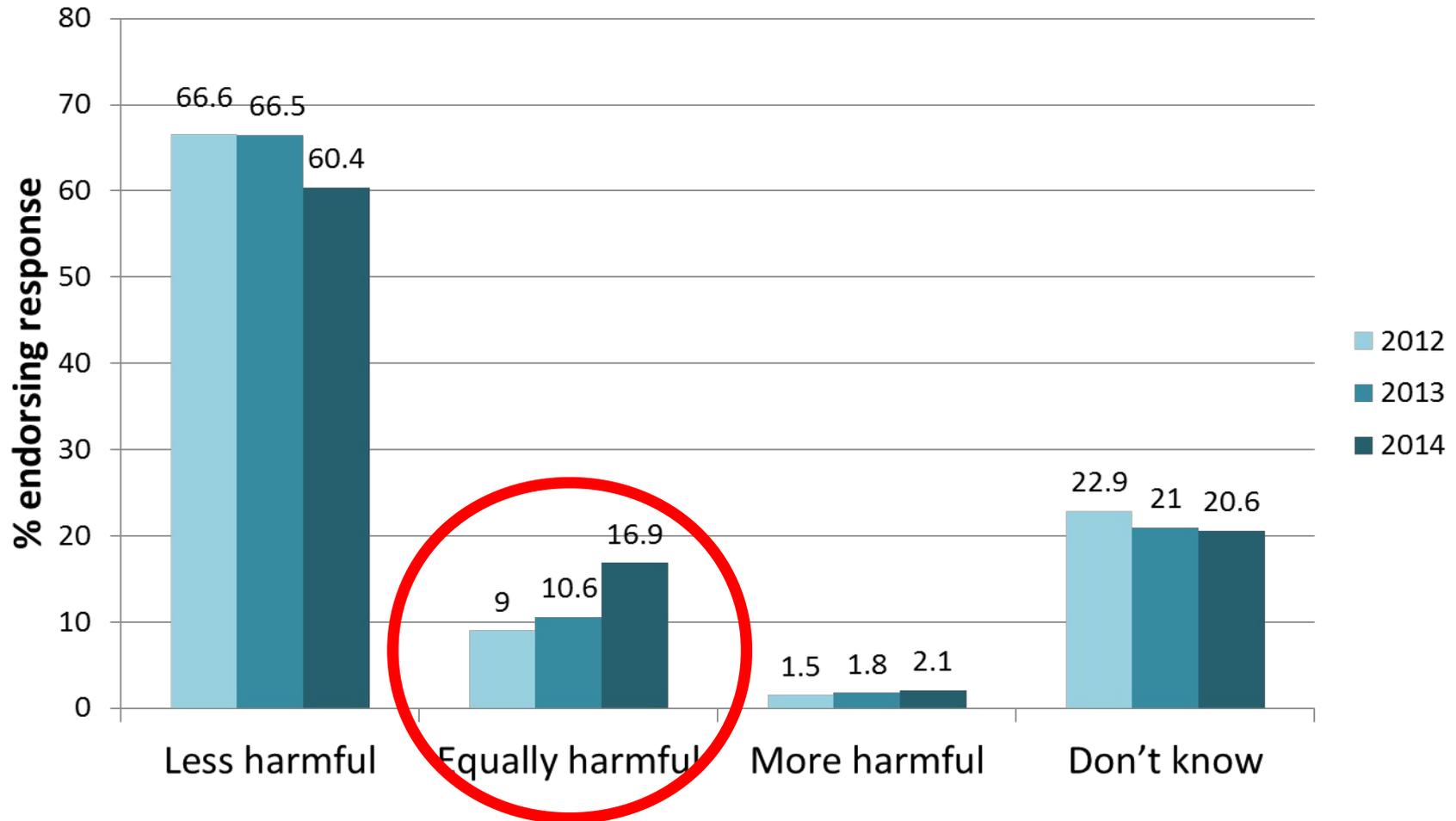
^d Department of Clinical, Educational and Health Psychology, University College London, London, UK

^e Addictions Department, Institute of Psychiatry, King's College London, UK



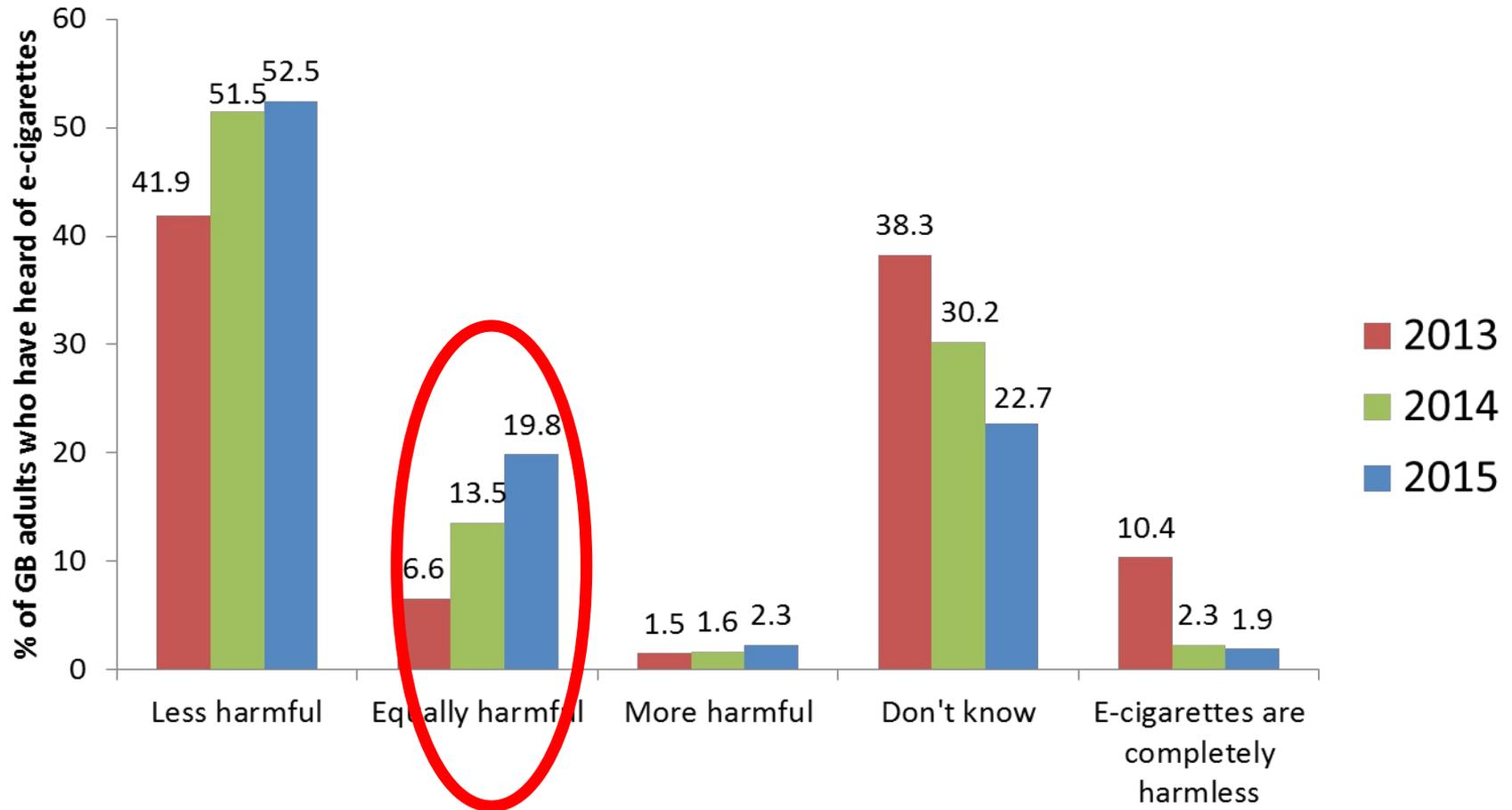
Understanding relative risks: *Harm perceptions among adults*

(Internet cohort survey 2012-14)



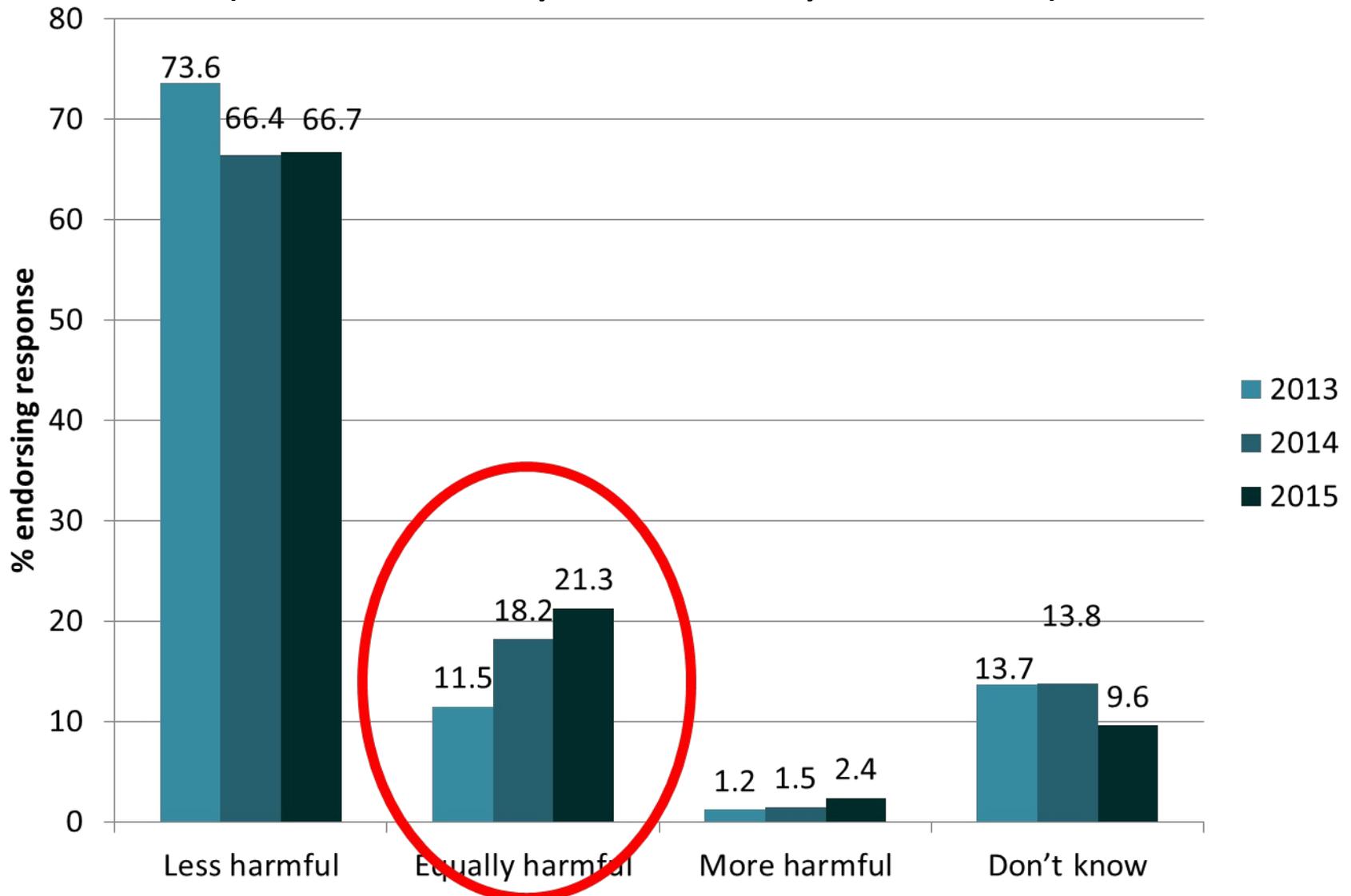
Harm perceptions among adults

(ASH YouGov adult surveys 2013-15)



Harm perceptions among youth

(ASH YouGov youth surveys 2013-15)



Individual health risks

CIGARETTE SMOKE

>7000 different chemicals in tobacco smoke
>69 cause cancer
Many others are toxic



Highly addictive

Cancers

Cardiovascular disease

Respiratory disease

Adverse reproductive effects

Harm to others

?95%

E- cigarette vapour

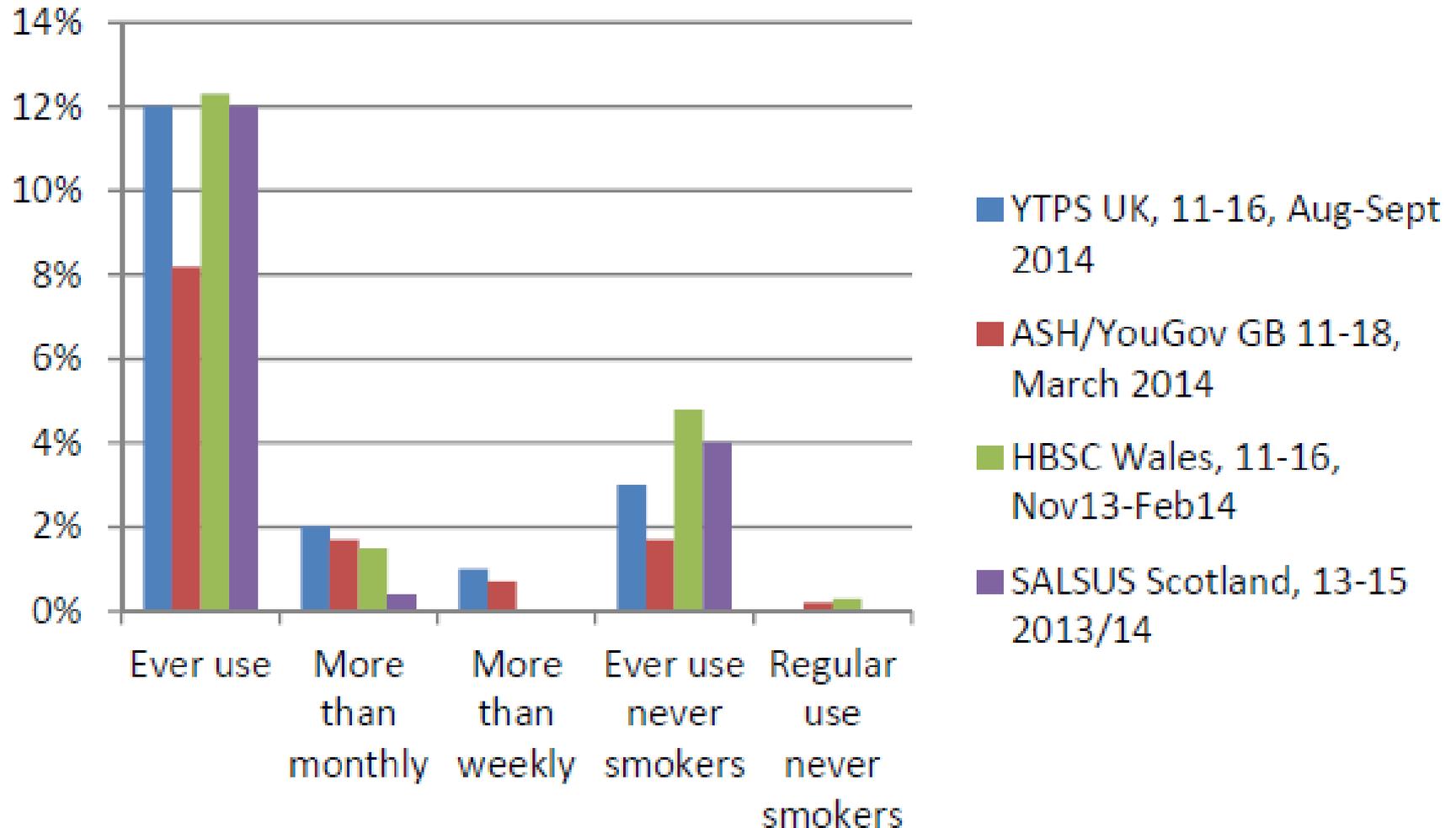


addictiveness varies

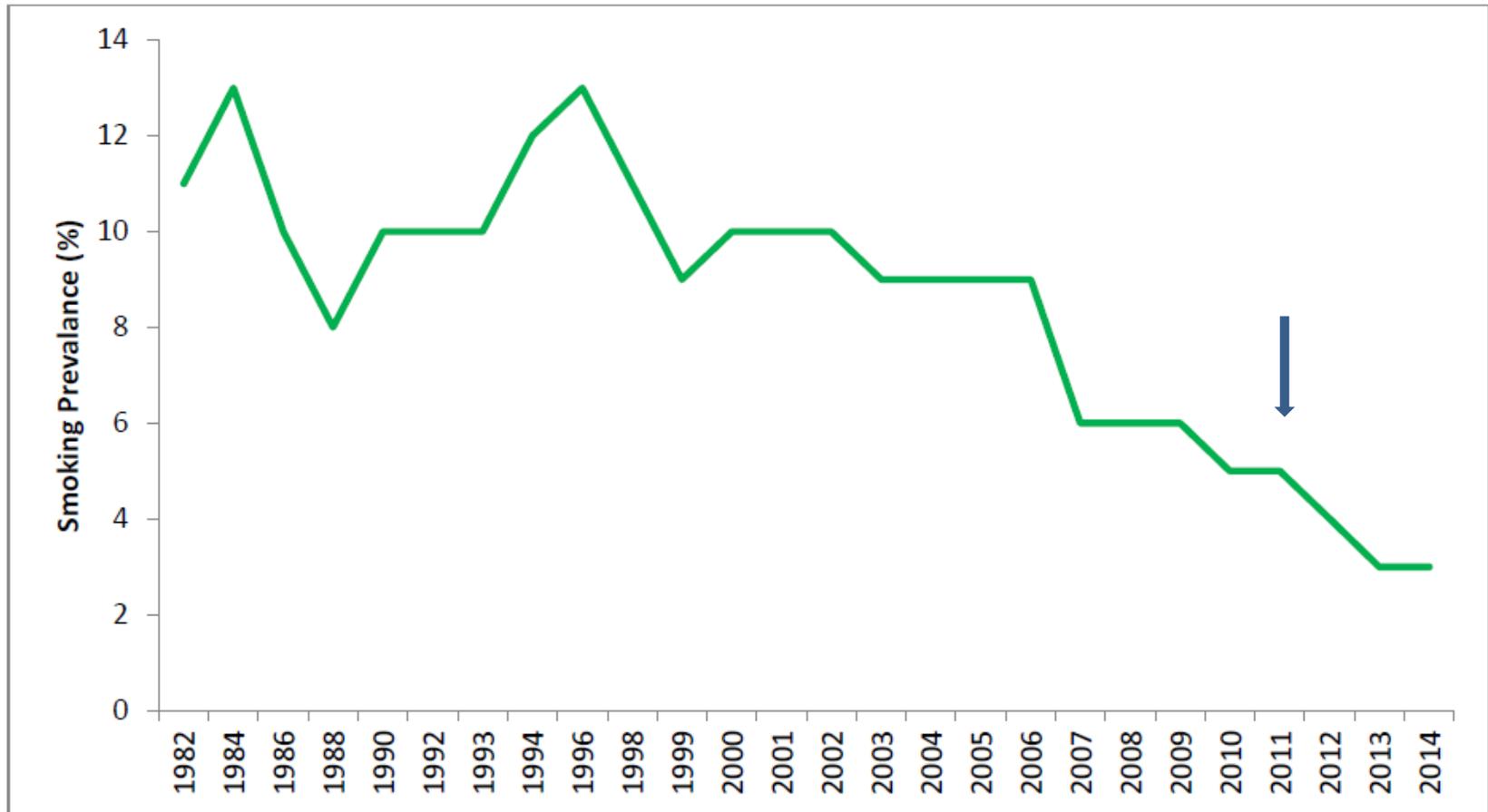
The constituents of cigarette smoke that harm health – including carcinogens – are either absent in e-cigarette vapour or, if present, they are mostly at levels much below 5% of smoking doses

The main chemicals present in e-cigarettes only have not been associated with any serious risk

Regular use among children is confined to those who have smoked

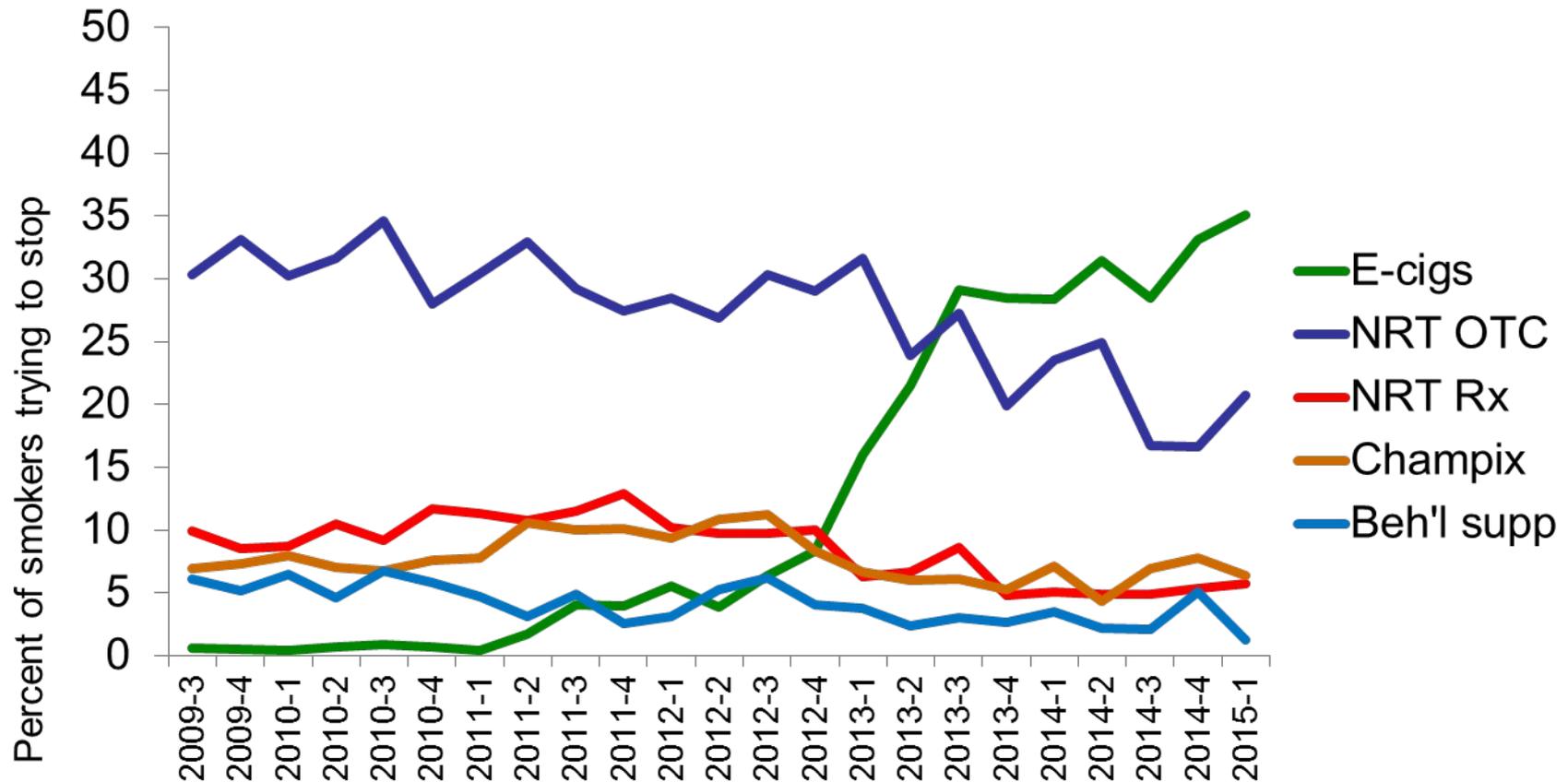


Regular smoking prevalence (11-15 yrs) in England



Health and Social Care Information Centre, 2014.

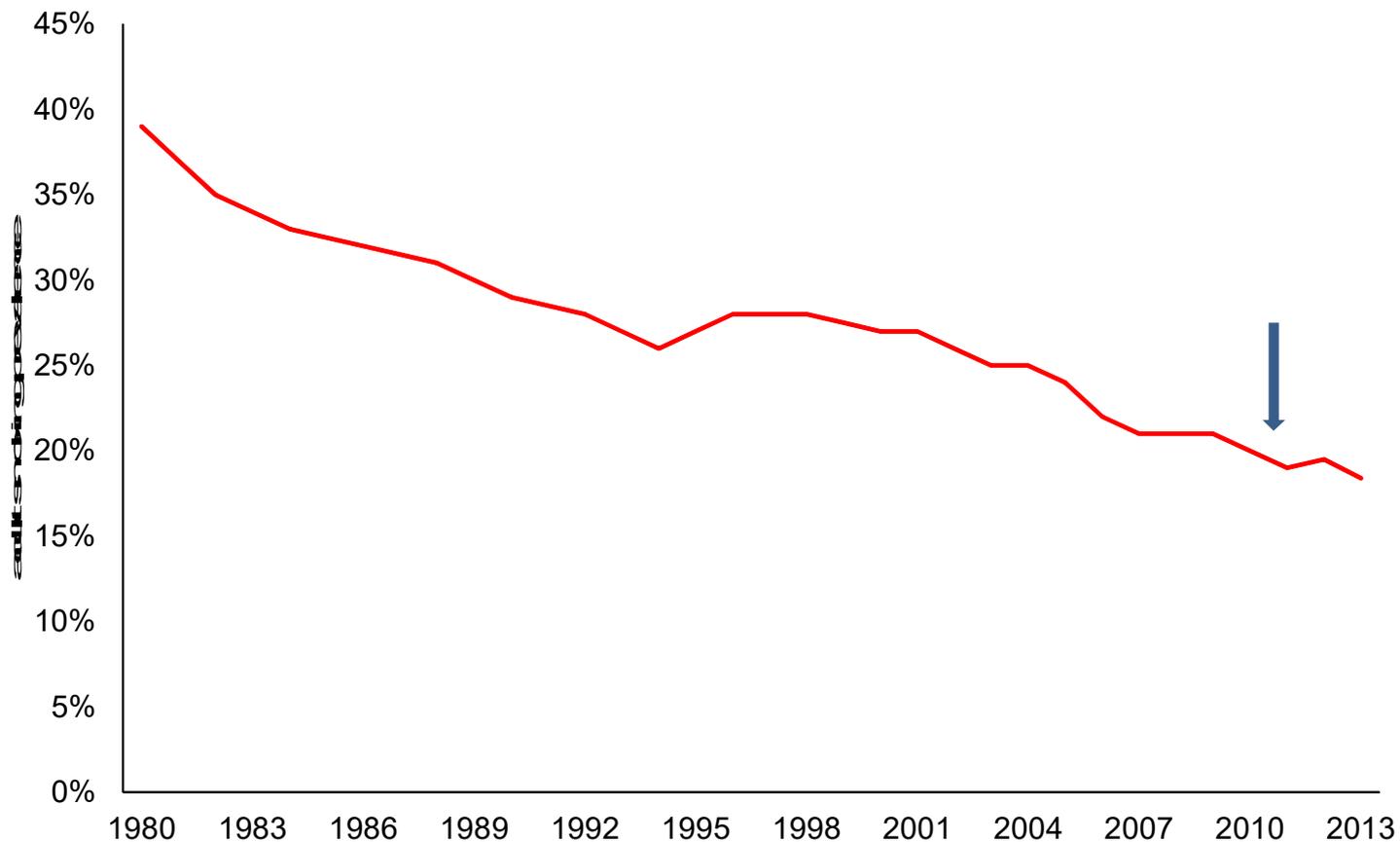
Aids used in most recent quit attempt



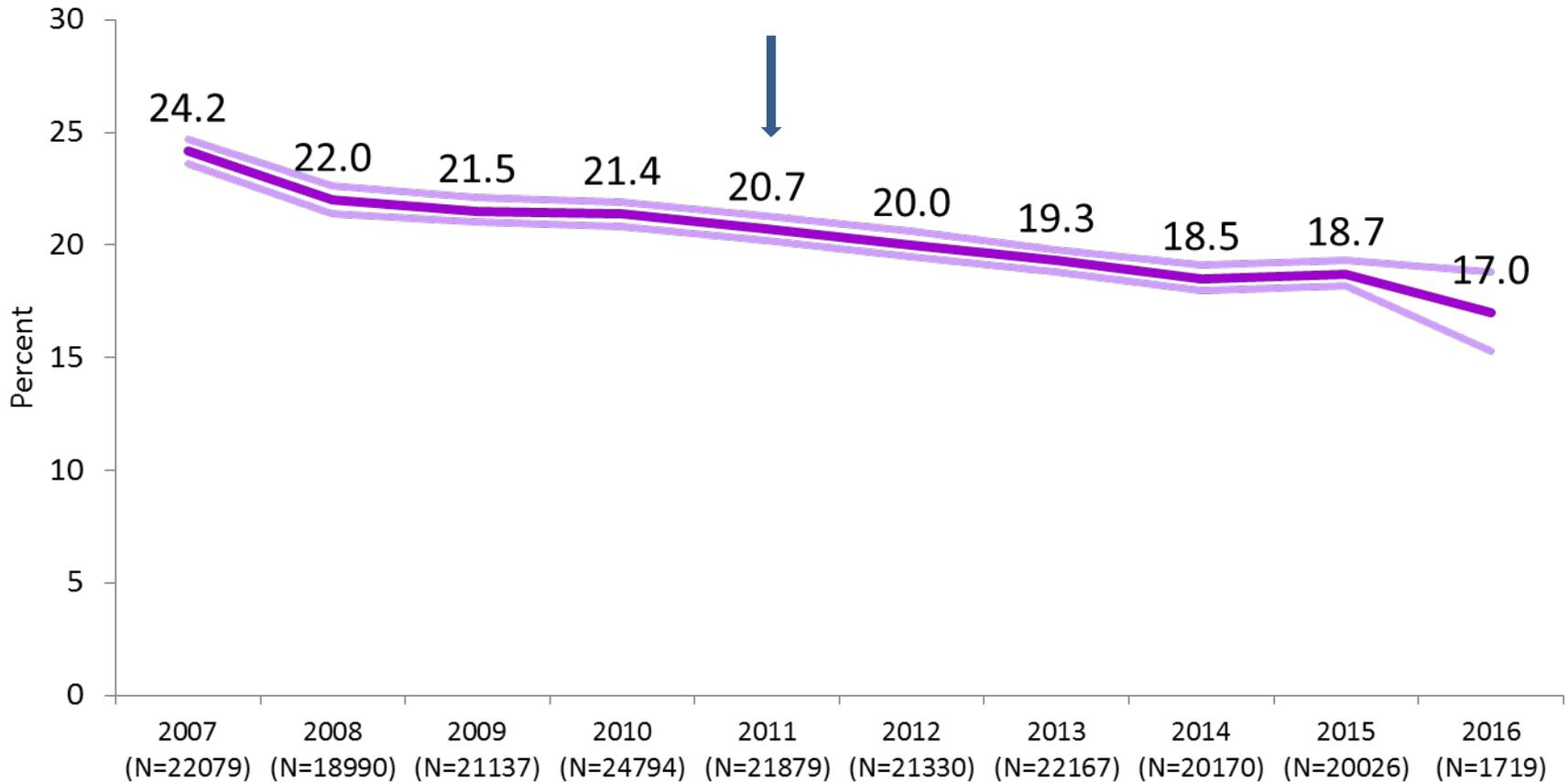
N=10078 adults who smoke and tried to stop or who stopped in the past year
Smokers' toolkit (West/Brown)

Adult smoking prevalence in England

(GHS, IHS)



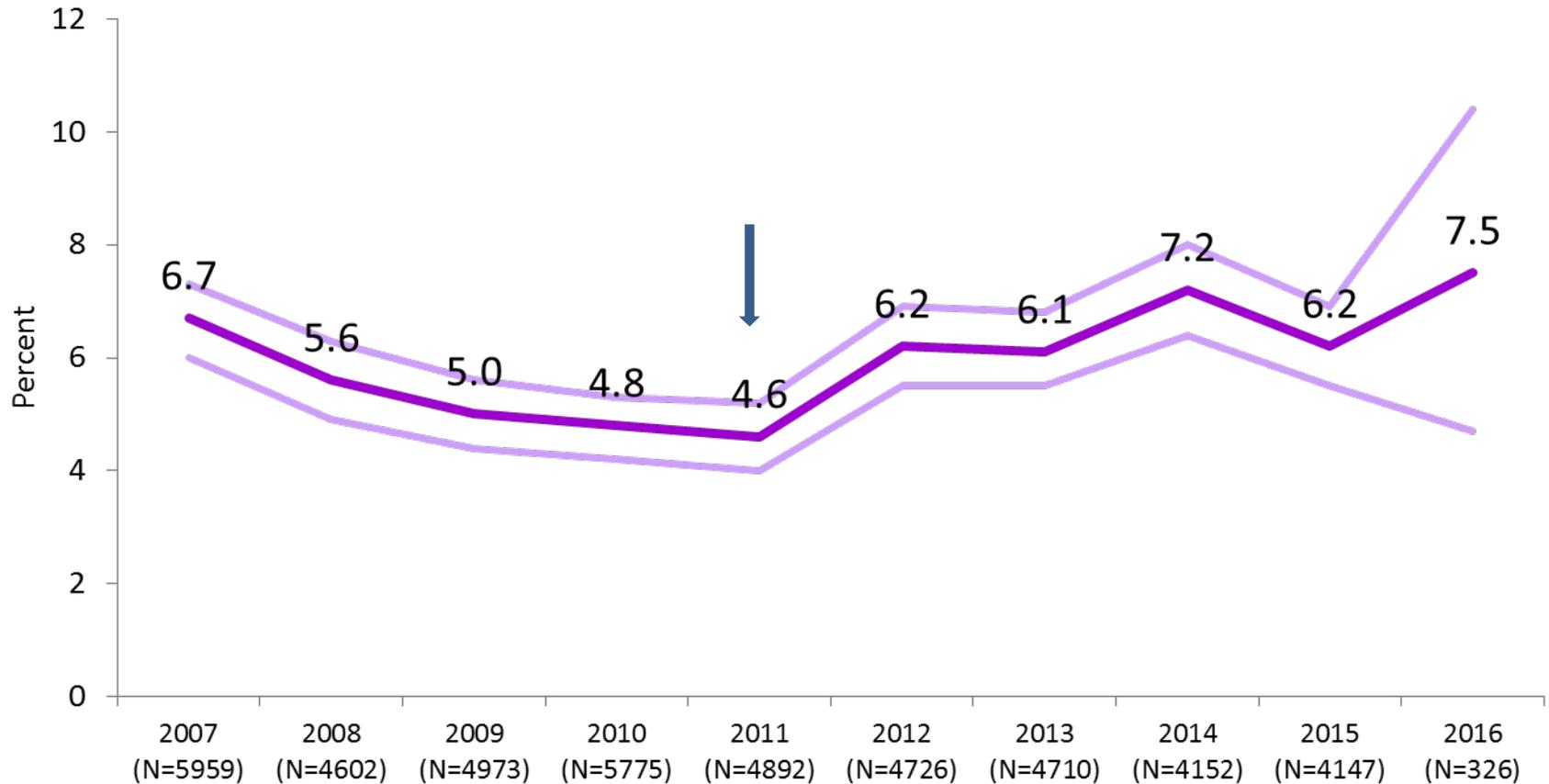
Adult smoking prevalence (Smoking toolkit study)



Base: All adults

Graph shows prevalence estimate and upper and lower 95% confidence intervals

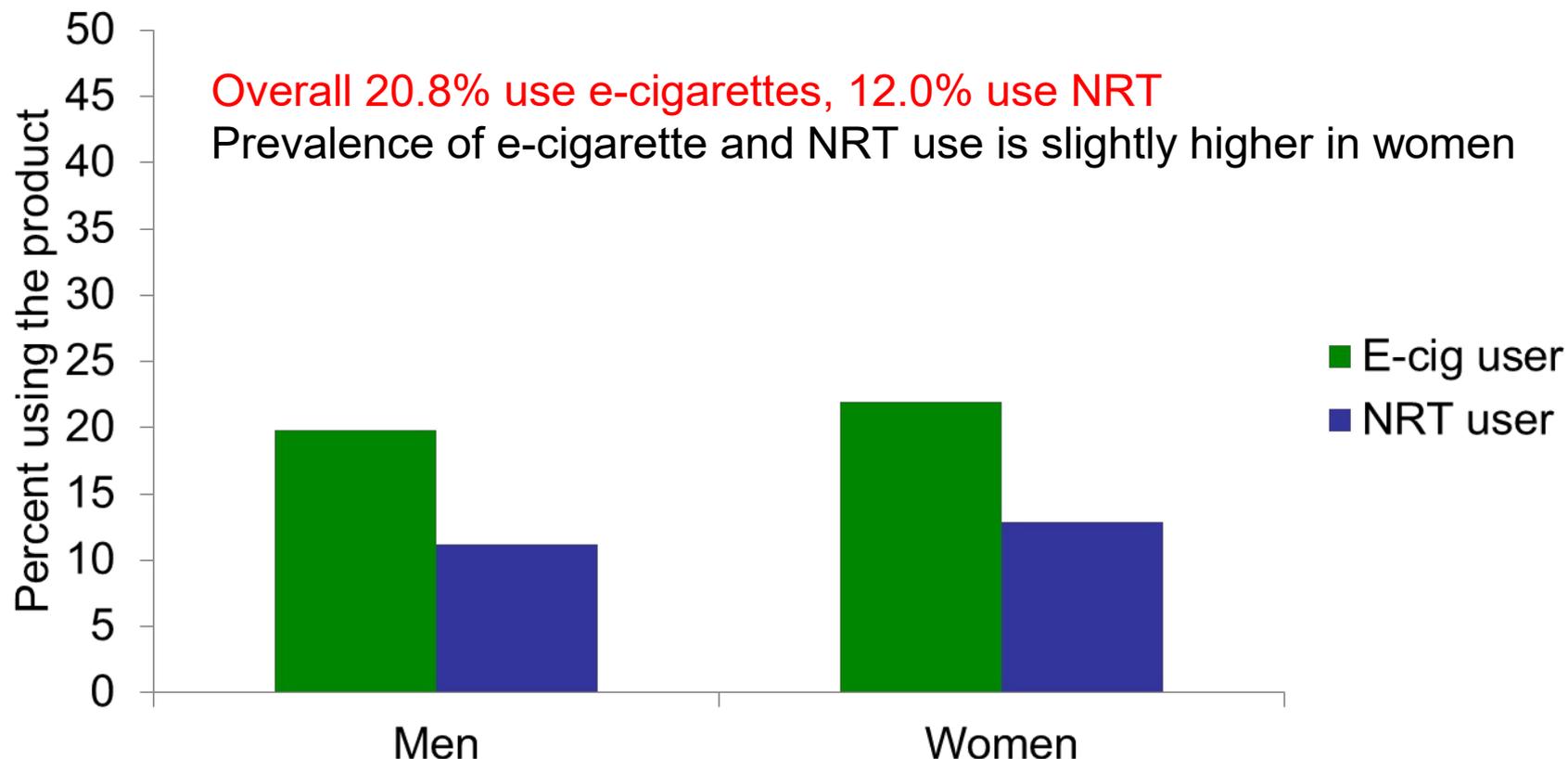
Stopped smoking in past 12 months (Smoking toolkit study)



Base: Adults who smoked in the past year

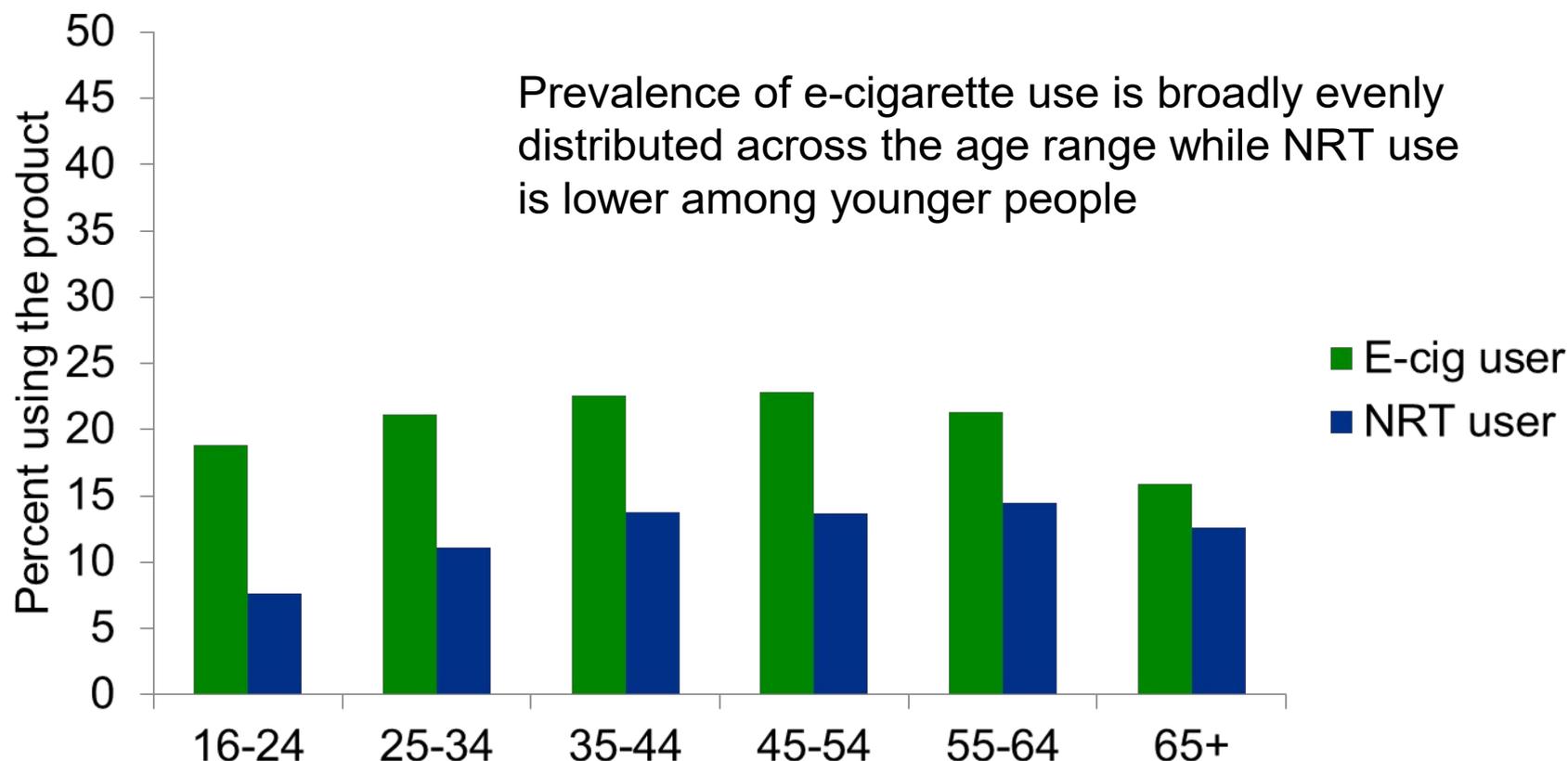
Graph shows prevalence estimate and upper and lower 95% confidence intervals

Electronic cigarette and NRT use in men and women who smoked in past year



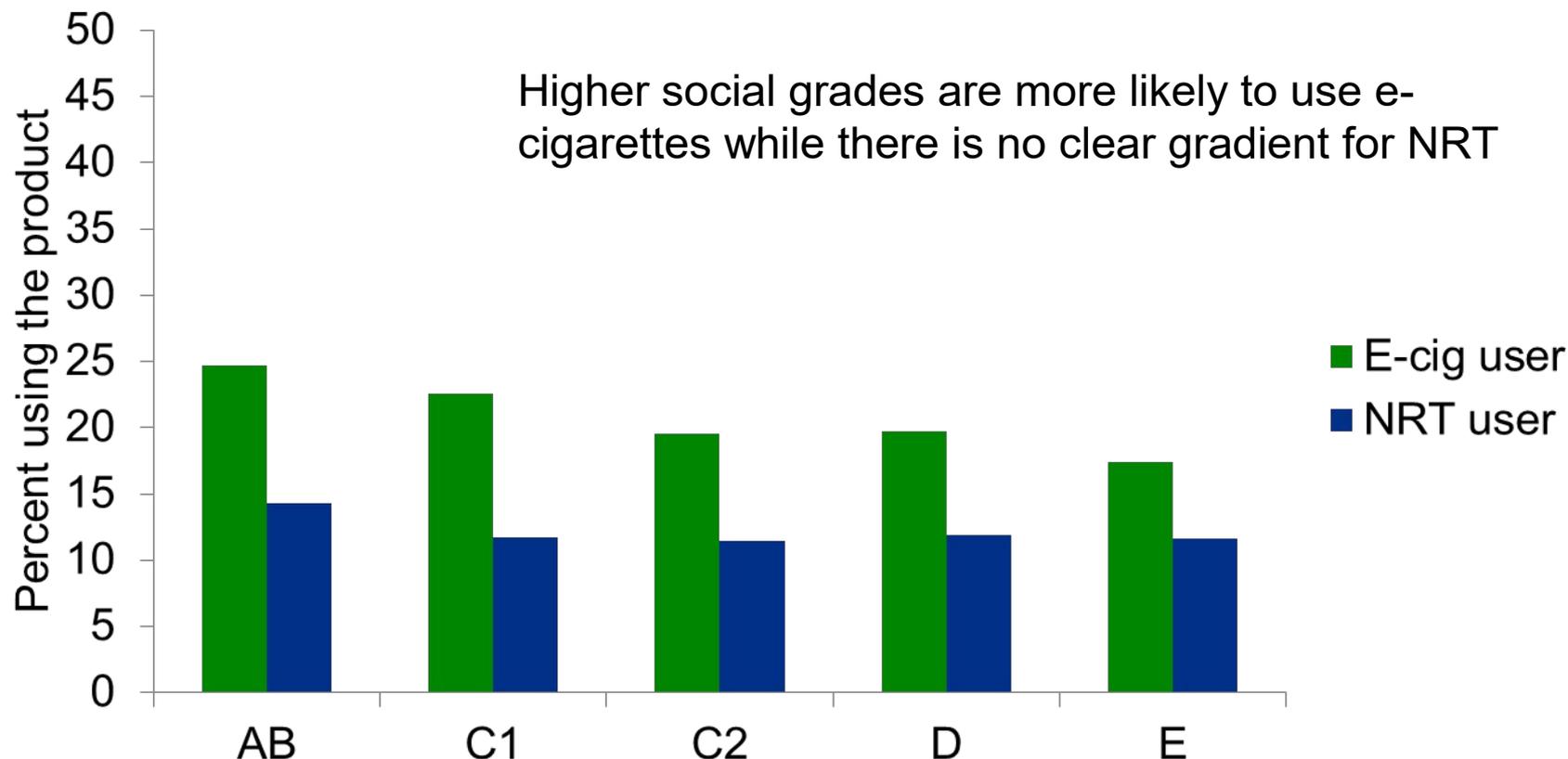
N=12,464 adults who smoke or who stopped in the past year and were surveyed between 2013-15

Electronic cigarette and NRT use across the age range in past year smokers



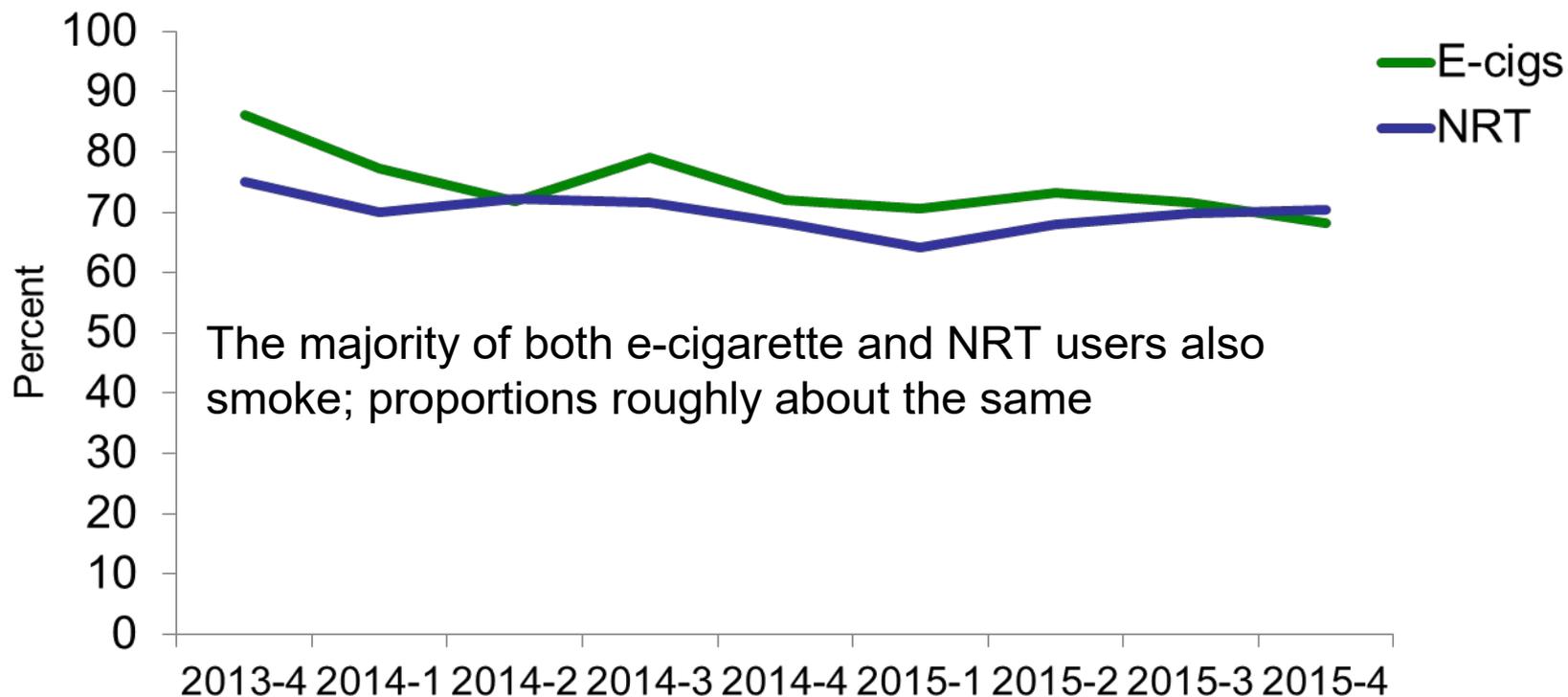
N=12,464 adults who smoke or who stopped in the past year and were surveyed between 2013-15

Electronic cigarette and NRT use across the social gradient in past year smokers



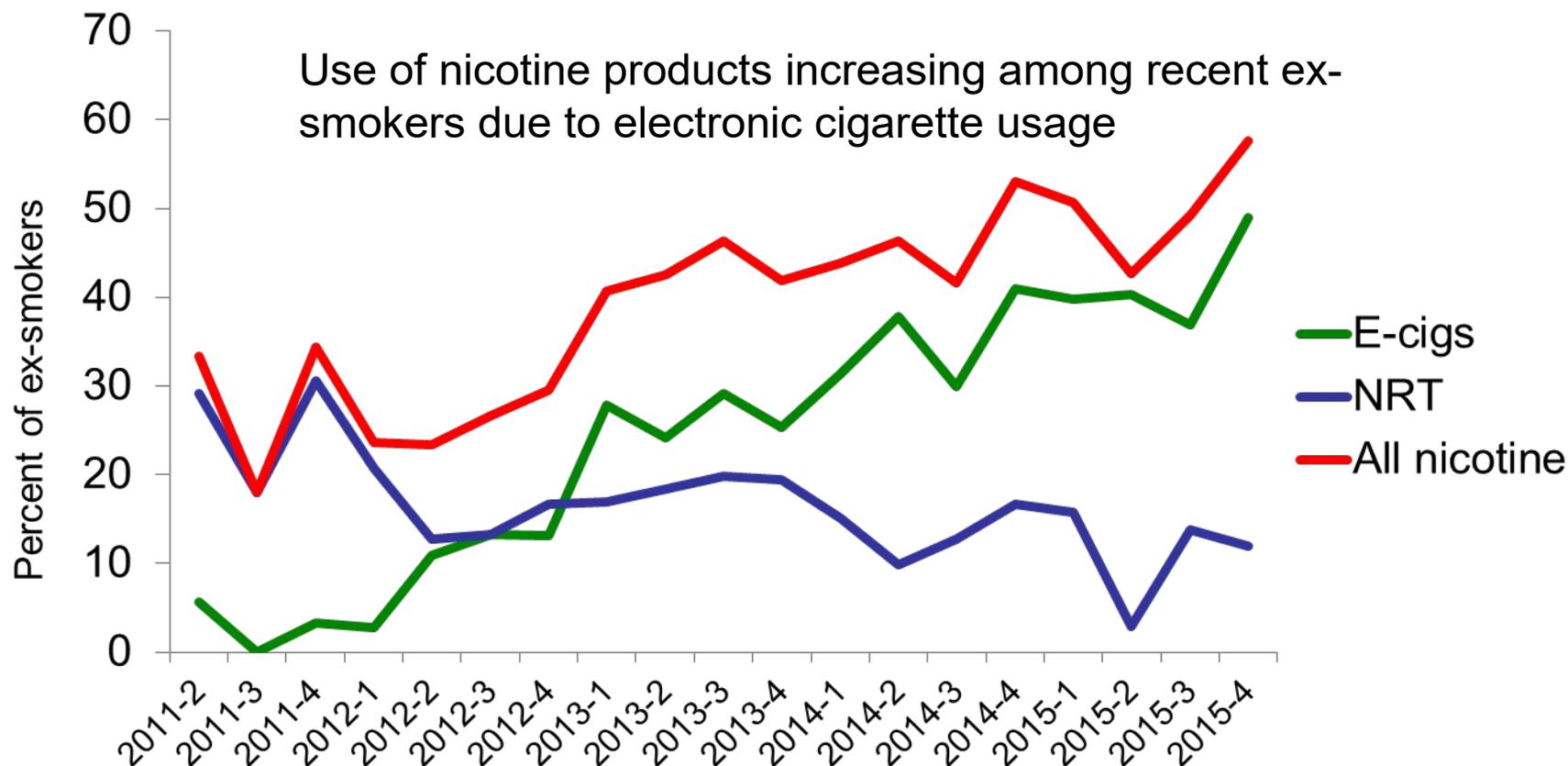
N=12,464 adults who smoke or who stopped in the past year and were surveyed between 2013-15

Proportion of e-cigarette and NRT users who are smokers (“dual users”)



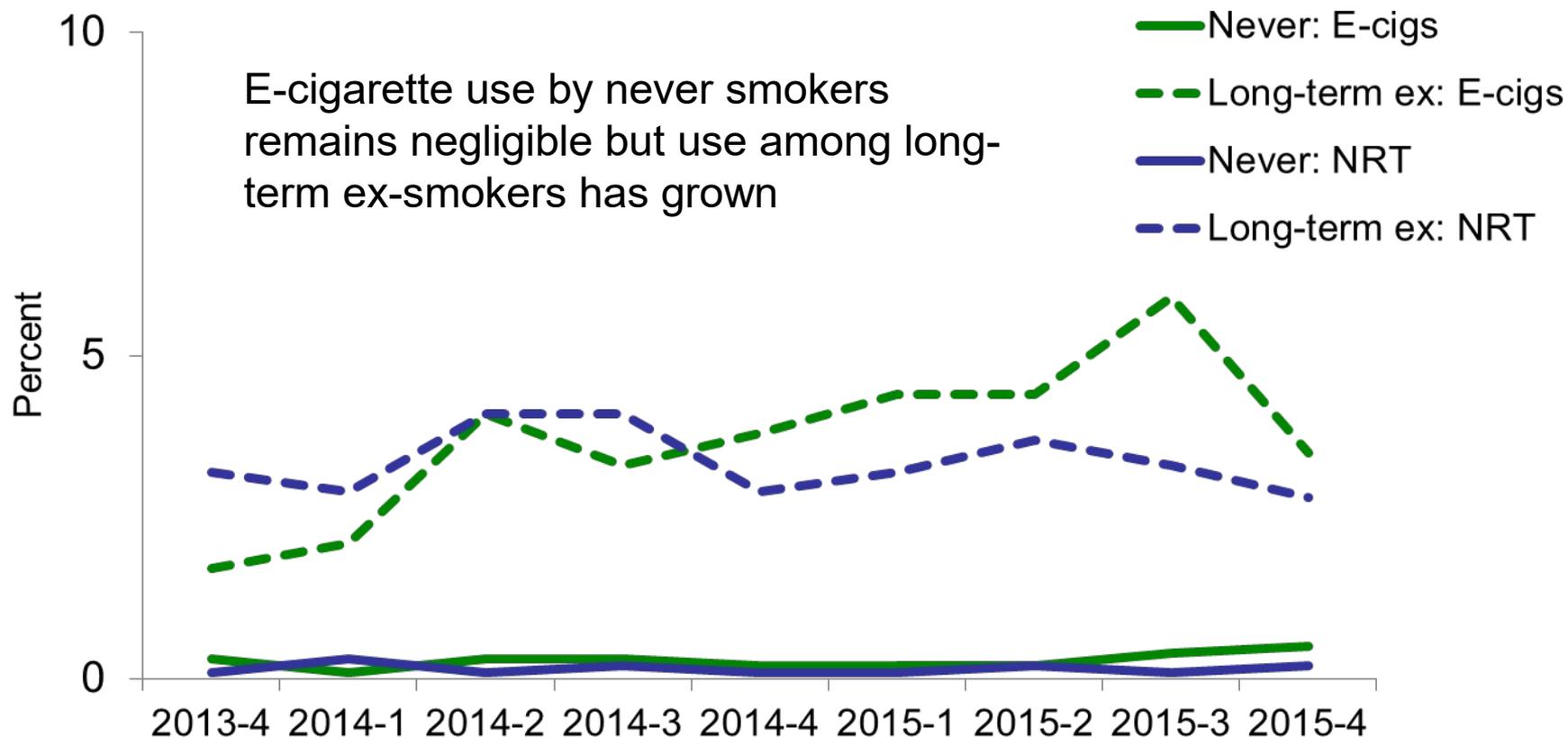
N=2231 e-cigarette users and N=1232 NRT users of adults

Use of nicotine products in recent ex-smokers



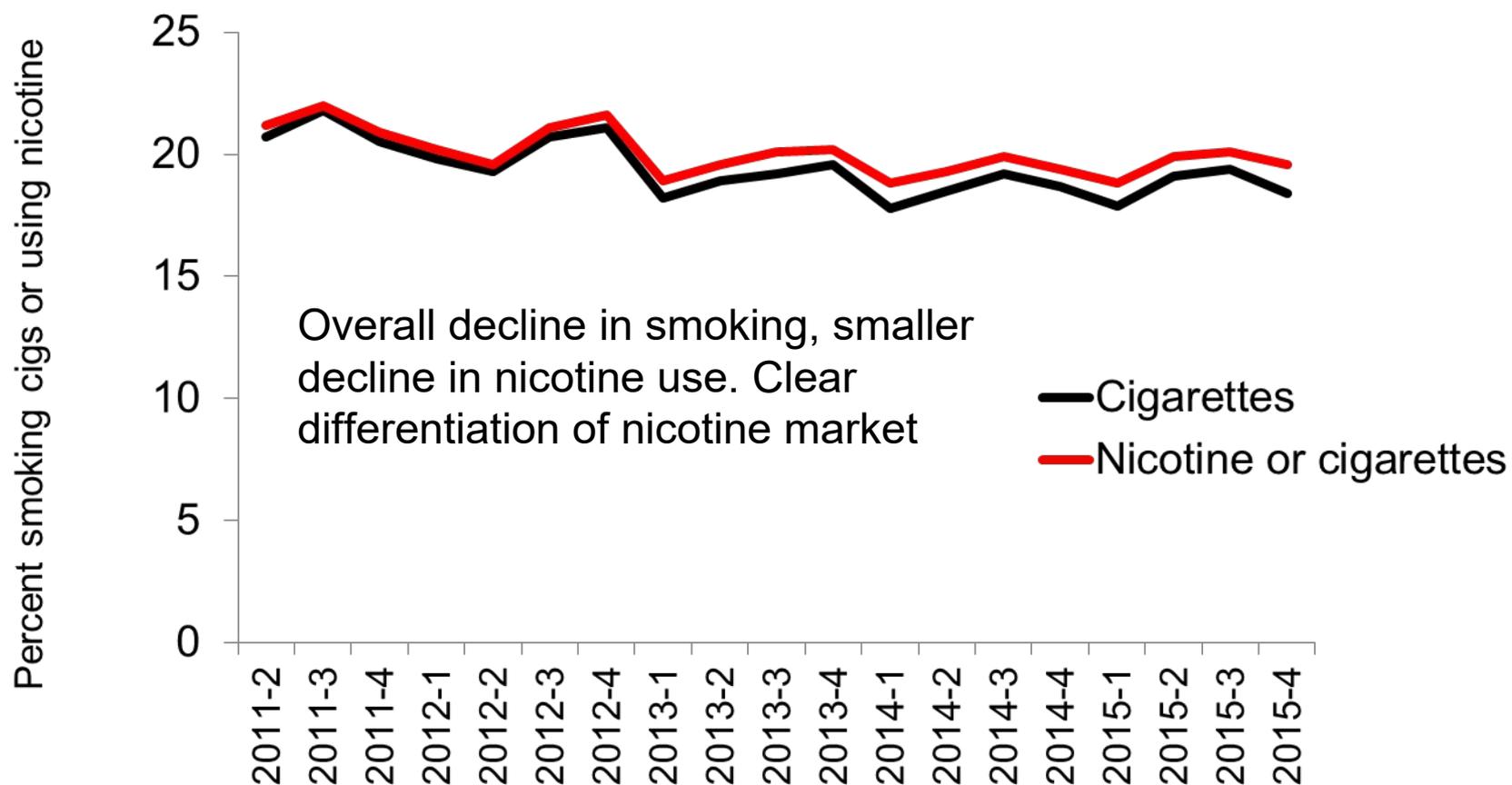
N=1305 adults who stopped in the past year; increase $p < 0.001$ for e-cigs and all nicotine; decrease $p < 0.001$ for NRT

Nicotine use by never smokers and long-term ex-smokers



N=34353 never and long-term ex-smokers from Nov 2013

Prevalence of nicotine/cigarette use

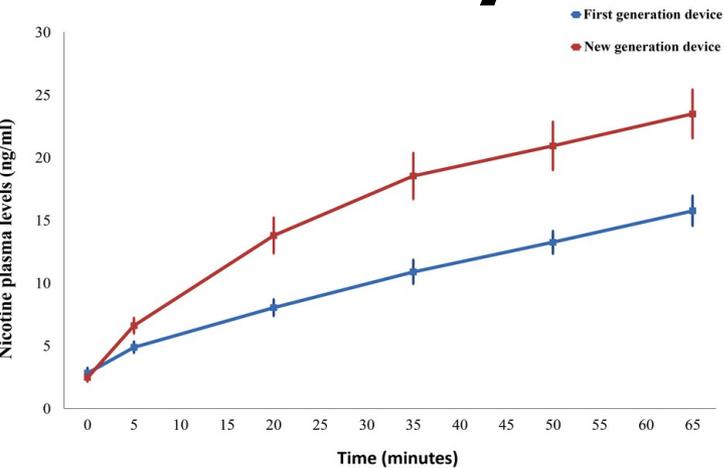


N=88954 adults, decrease $p < 0.001$ for cigarettes and $p < 0.001$ for overall nicotine use

Population risks

- **We found evidence that electronic cigarettes...**
 - Are not causing young people to take up smoking
 - Can help people to quit smoking and reduce their cigarette consumption...
 - Even among those not intending to quit or rejecting other support
- In summary, e-cigarettes were not undermining the long-term decline in cigarette smoking among adults and youth, and may in fact be contributing to it

Why are e-cigarettes popular?



Speed & dose of nicotine delivery?

Consumer-led?

Marketing?

Packaging?

Behavioural?



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Like smoking, only better
USB STARTER KIT

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The world's only electronic cigarette with patented VAPORCORE™ Technology

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THIS NEW YEAR, RETURN THE FAVOR
FRIENDS DON'T LET FRIENDS SMOKE.

WATCH AND SHARE:

CIGARETTES, YOU'VE MET YOUR MATCH.

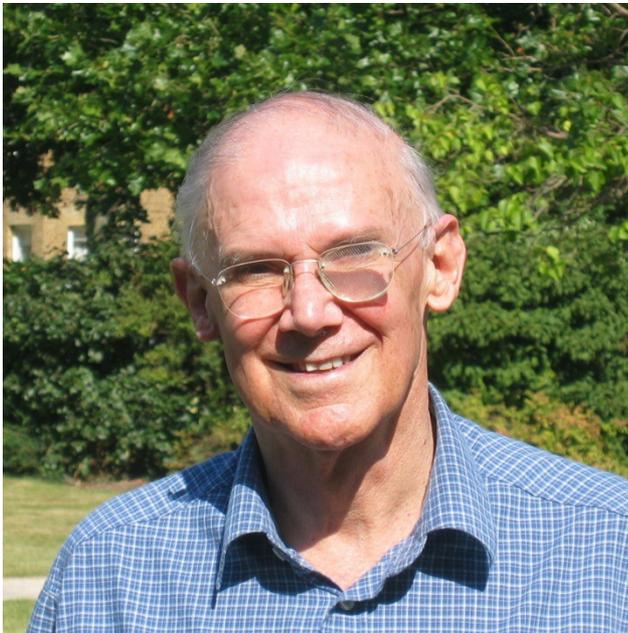
INTRODUCING THE SLIMMING ELECTRONIC CIGARETTE. FROM 20. HONORING TASTE & FEEL. ALTERNATIVE.

\$89
The Retro
Available in select shops

The future of nicotine replacement

MICHAEL A. H. RUSSELL

*ICRF Health Behaviour Unit, Institute of Psychiatry, 101 Denmark Hill,
London SE5 8AF, UK*



The case for promoting replacement

The strength of the case for promoting nicotine replacement is based on what it seeks to replace, namely tobacco. It is not suggested that nicotine use be presented as something good, but rather as something far less bad than tobacco. But the verb, promote, is used deliberately. It is not proposed that it will be sufficient to grudgingly sanction long-term nicotine replacement. The case advanced is that selected nicotine replacement products be made as palatable and acceptable as possible and actively promoted on the open market to enable them to compete with tobacco products. Those deemed sufficiently safe should be easily accessible without medical prescription, probably initially at pharmacies. Everything possible should be done to give them a competitive edge over tobacco, for they may not be as pleasant or palatable and will depend on other incentives. They should be advertized and actively promoted even after advertizing of tobacco has been banned. There should be health authority endorsement to enable exploitation of their health advantages, and taxation should be adjusted to give them a clear price advantage over tobacco products.

RCP: e-cigarette regulations

- There is a need for regulation to reduce direct and indirect adverse effects of e-cigarette use, but this regulation should not be allowed significantly to inhibit the development and use of harm-reduction products by smokers
- A regulatory strategy should, therefore, take a balanced approach in seeking to ensure product safety, enable and encourage smokers to use the product instead of tobacco, and detect and prevent effects that counter the overall goals of tobacco control policy

What did PHE report recommend?

- Smokers *who have tried other methods of quitting without success* could be encouraged to try e-cigarettes to stop smoking
- Stop smoking **services** should support smokers using e-cigarettes to quit **by offering them behavioural support**
- Encouraging smokers who *cannot or do not want* to stop smoking to switch to e-cigarettes could help reduce smoking related disease, death and health inequalities

RCP conclusion

- *“However, in the interests of public health it is important to promote the use of e-cigarettes, NRT and other non-tobacco nicotine products as widely as possible as a substitute for smoking in the UK”*

The Tobacco Control Scale 2013 in Europe

Luk Joossens Martin Raw



Table 4: European countries ranked by total TCS score in 2013

2013 ranking (2010 ranking)		Country	Price (30)	Public place bans (22)	Public info. campaign spending (15)	Advertising bans (13)	Health warnings (10)	Treatment (10)	Total (100)
1 (1)	–	UK	27	21	3	10	4	9	74
2 (2)	–	Ireland	24	21	1	12	5	7	70
3 (4)	▲	Iceland	20	17	12	12	4	1	66
4 (3)	▼	Norway	20	17	3	12	4	5	61
5 (4)	▼	Turkey	21	19		7	5	5	57
5 (6)	▲	France	20	17	1	9	4	6	57
7 (13)	▲	Spain	15	21	1	9	4	6	56
7 (7)	-	Malta	17	18		10	4	7	56
9 (7)	▼	Finland	15	17	3	12	2	6	55

Acknowledgements

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- Leonie Brose
- Sara Hitchman
- Robert West
- Jamie Brown

Thank you



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