



Electronic Nicotine Delivery Systems

Part I: Regulation to Prevent Youth Initiation and Use

Clive Bates, Director, Counterfactual Consulting Limited

Aruni Bhatangar, Professor of Medicine and Distinguished University Scholar,
University of Louisville and Fellow, American Heart Association

Tevi D. Troy, Vice President of Public Policy, JUUL Labs

Moderated by **Stacy L. Ehrlich**, Partner, Kleinfeld, Kaplan & Becker, LLP and
Member, FDLI Board of Directors



Electronic Nicotine Delivery Systems Part I: Regulation to Prevent Youth Initiation and Use

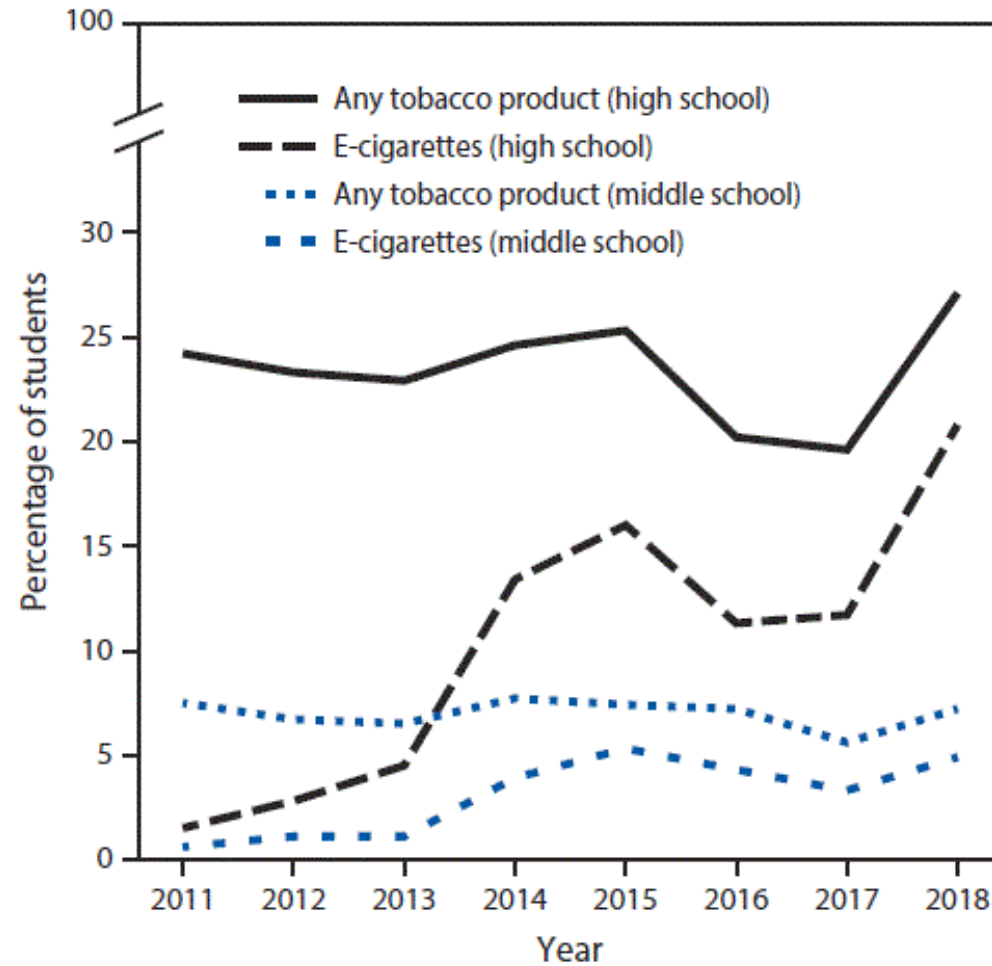
Stacy L. Ehrlich, Partner, Kleinfeld, Kaplan
& Becker, LLP and Member, FDLI Board of
Directors



E-cigarettes: Youth initiation and Use

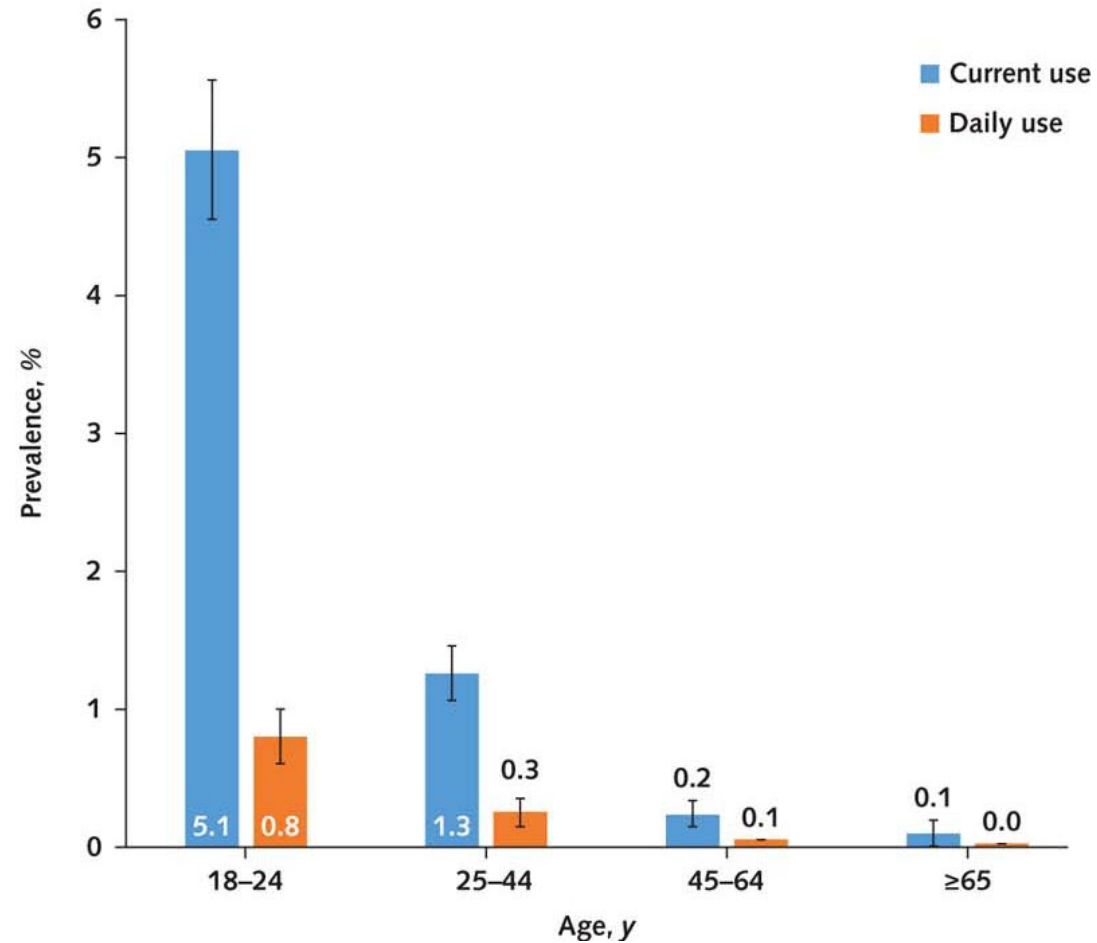
Aruni Bhatnagar, PhD, FAHA
Director, American Heart Association Tobacco Regulation Center
Department of Medicine
University of Louisville, Louisville, KY

Current E-Cigarette Use in Youth

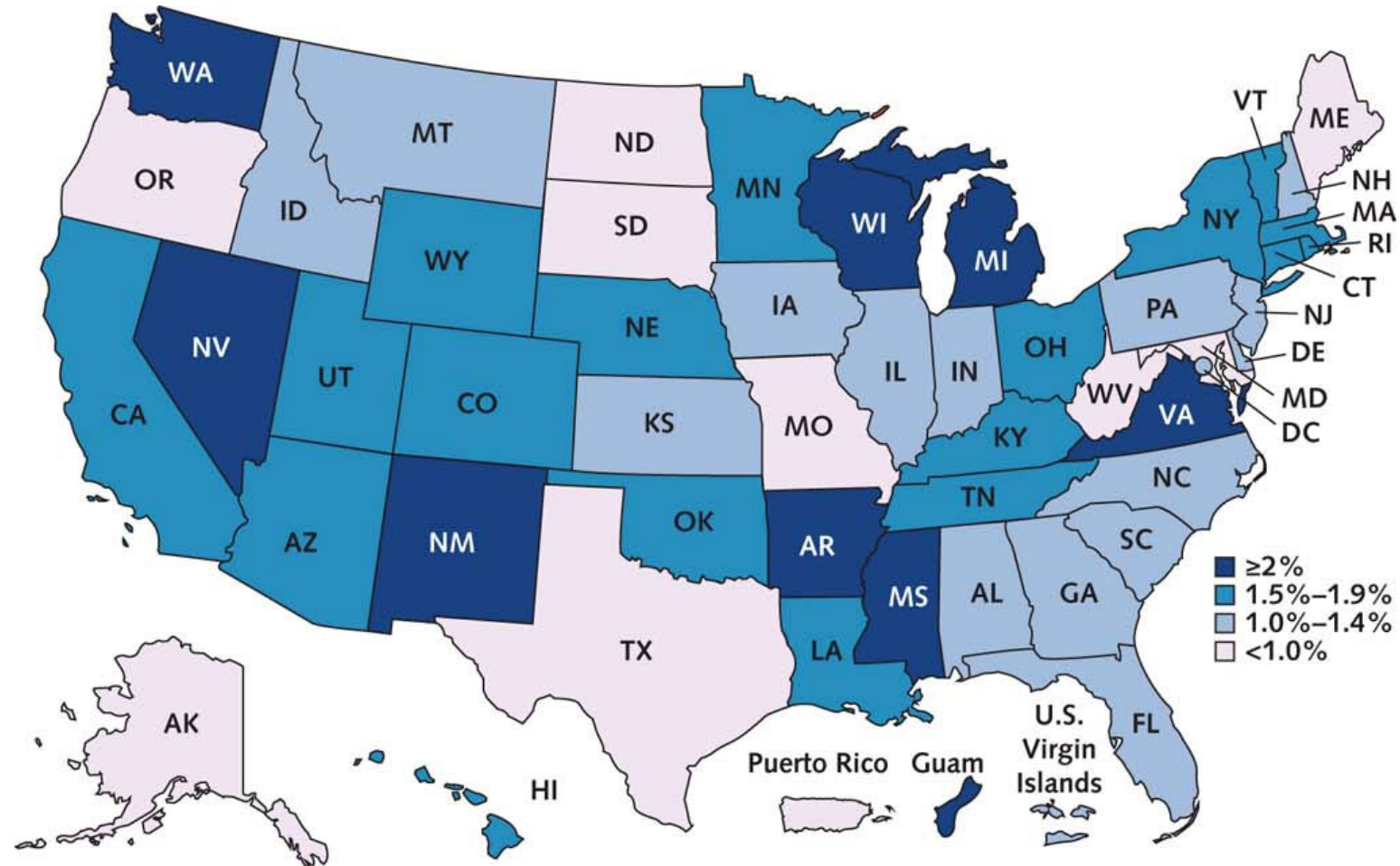


National Youth Tobacco Survey 2011-2018

Prevalence among individuals who have never smoked combustible cigarettes



State-Specific, age-standardized prevalence of sole e-cigarette use



Association of E-cigarette use with subsequent initiation of tobacco cigarettes in US youths

Prior e-cigarette users had 4.09 times the odds of ever combustible cigarette use compared with youth with no prior tobacco use

Odds of current cigarette use were higher among prior e-cigarette users – OR 2.75 and prior other product use OR 3.43 compared with youths with no prior tobacco use.

At the population level, about 180,000 new never smokers and 45,000 current smokers in the US may have started smoking combustible cigarettes after initiating e-cigarette use

Normalization of Smoking





life is why™

es por la vida™

全為生命™



Electronic Nicotine Delivery Systems

Part I: Regulation to Prevent Youth Initiation and Use

Tevi D. Troy, Vice President of Public
Policy, JUUL Labs



Youth vaping epidemic

Three points to consider

FDLI meeting 3rd May 2019
Washington DC

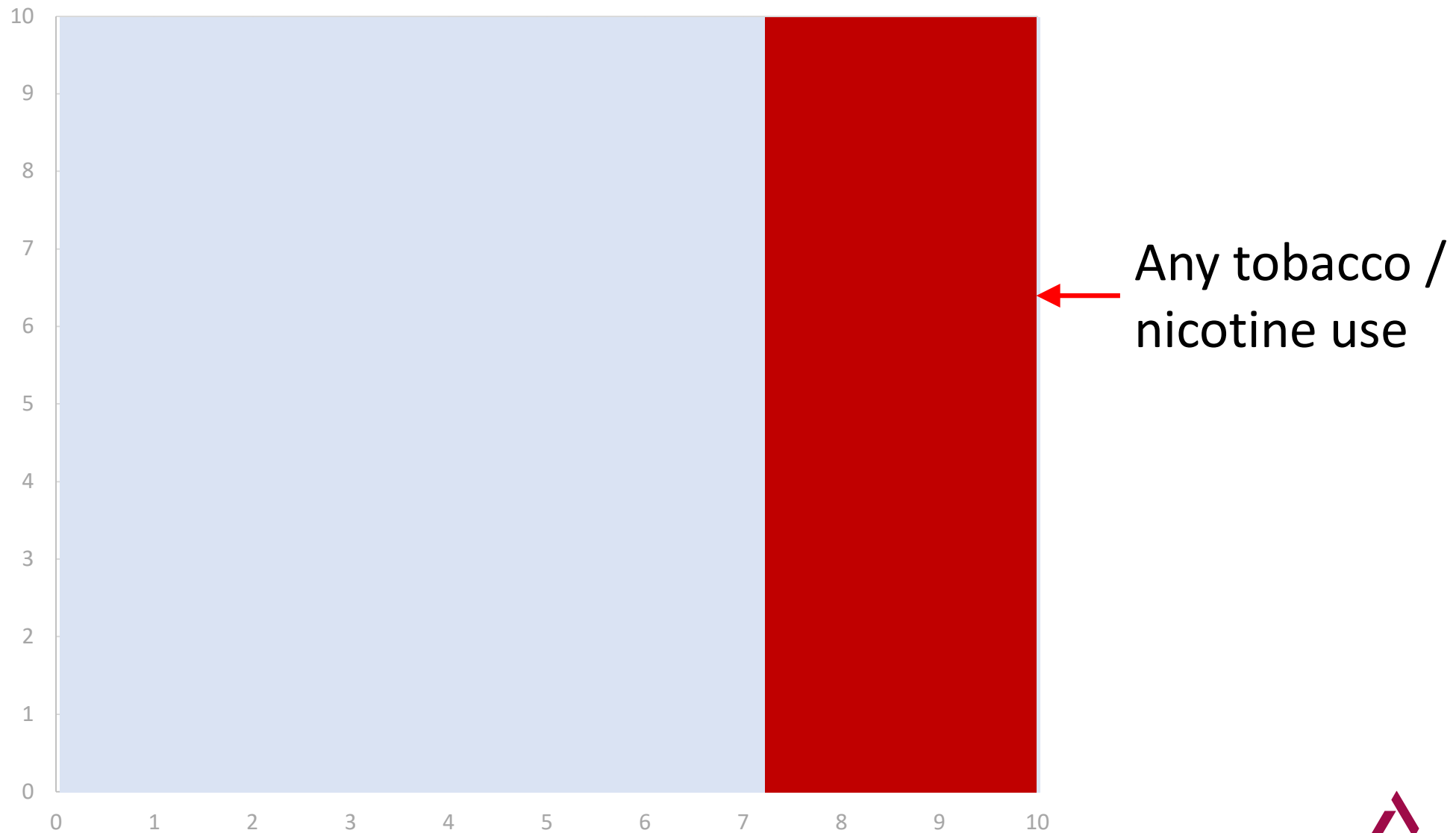
Clive Bates
Counterfactual

1. An epidemic of what?

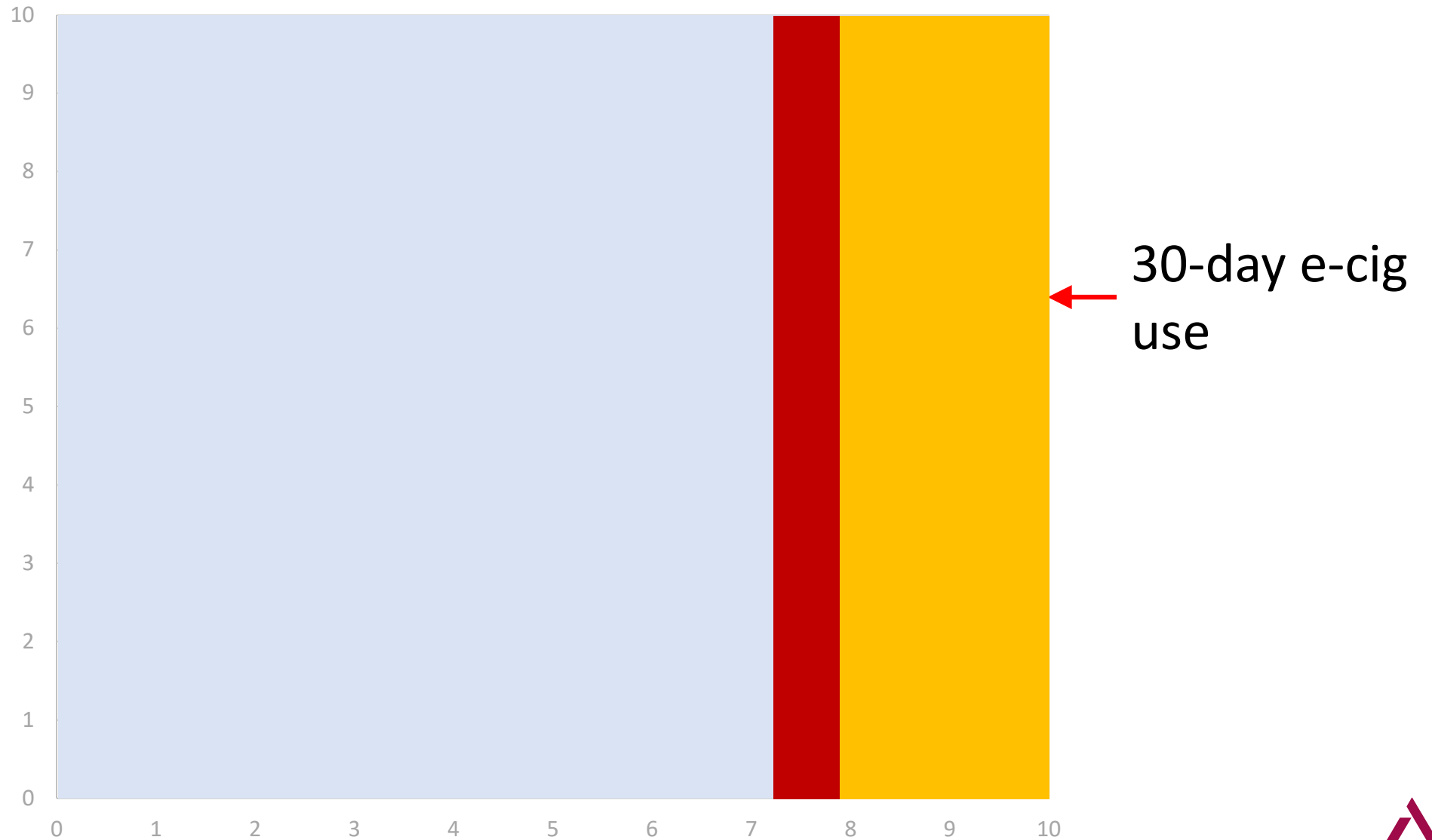
15 million high school age adolescents (100%)



5.2 million high school users of tobacco or e-cigarettes (27.1%)

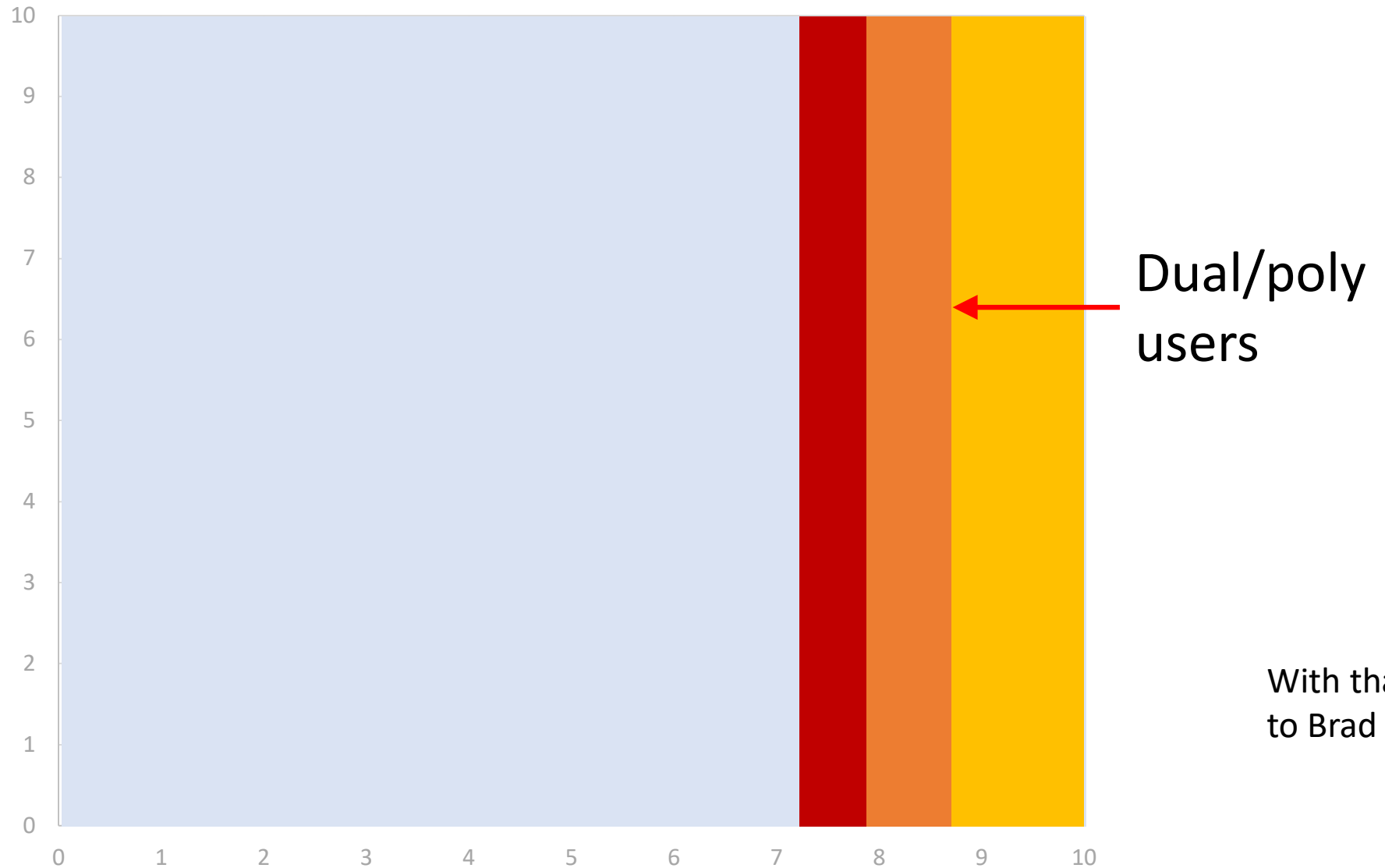


4 million high school students use e-cigarettes (20.8%)



With thanks
to Brad Rodu

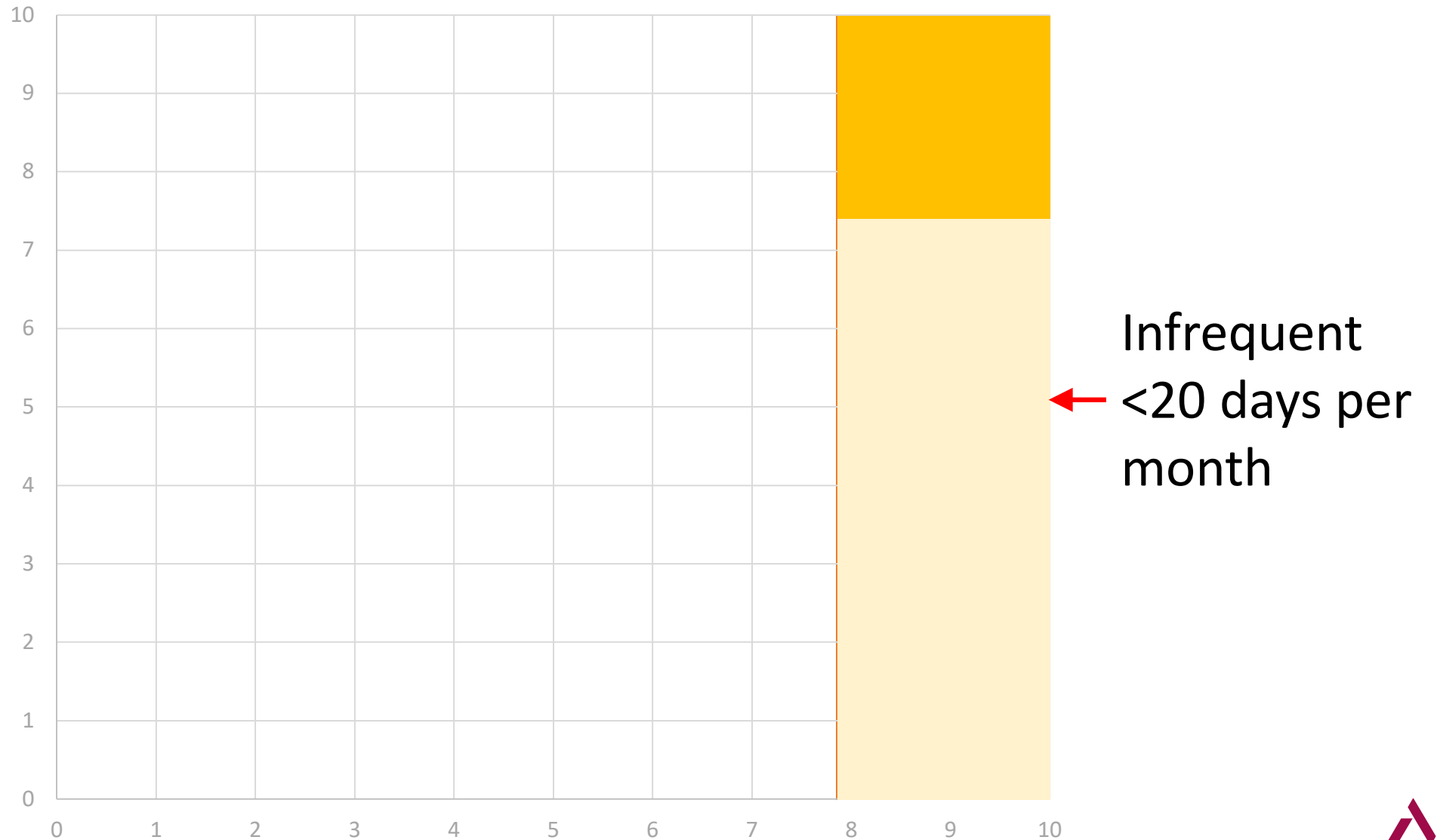
1.2 million e-cig users also smoke cigarettes or cigars (8.3%)



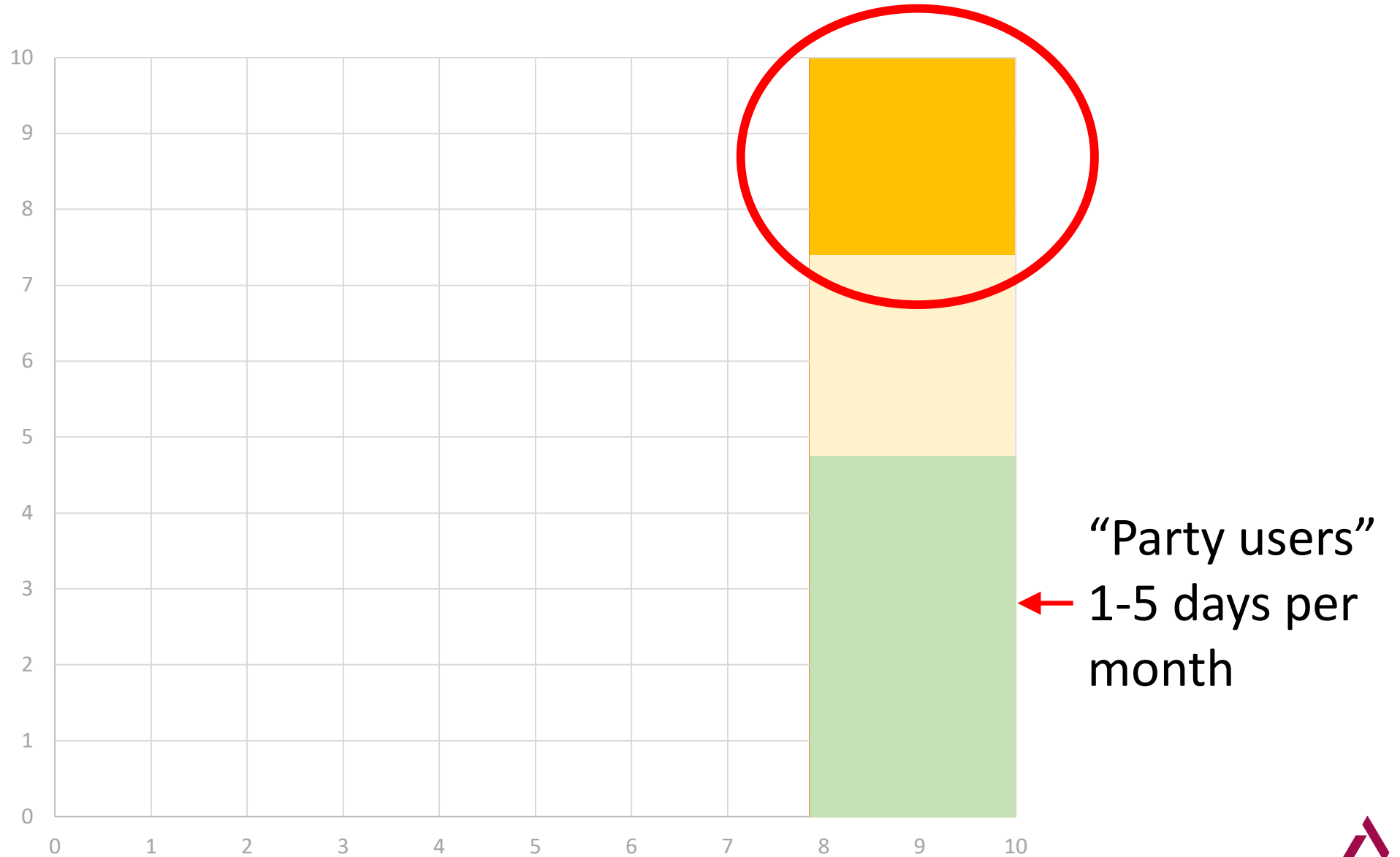
With thanks
to Brad Rodu

With thanks
to Brad Rodu

Most high school e-cig users (~72%) are infrequent users



Nearly half (48%) are vaping only 1-5 days



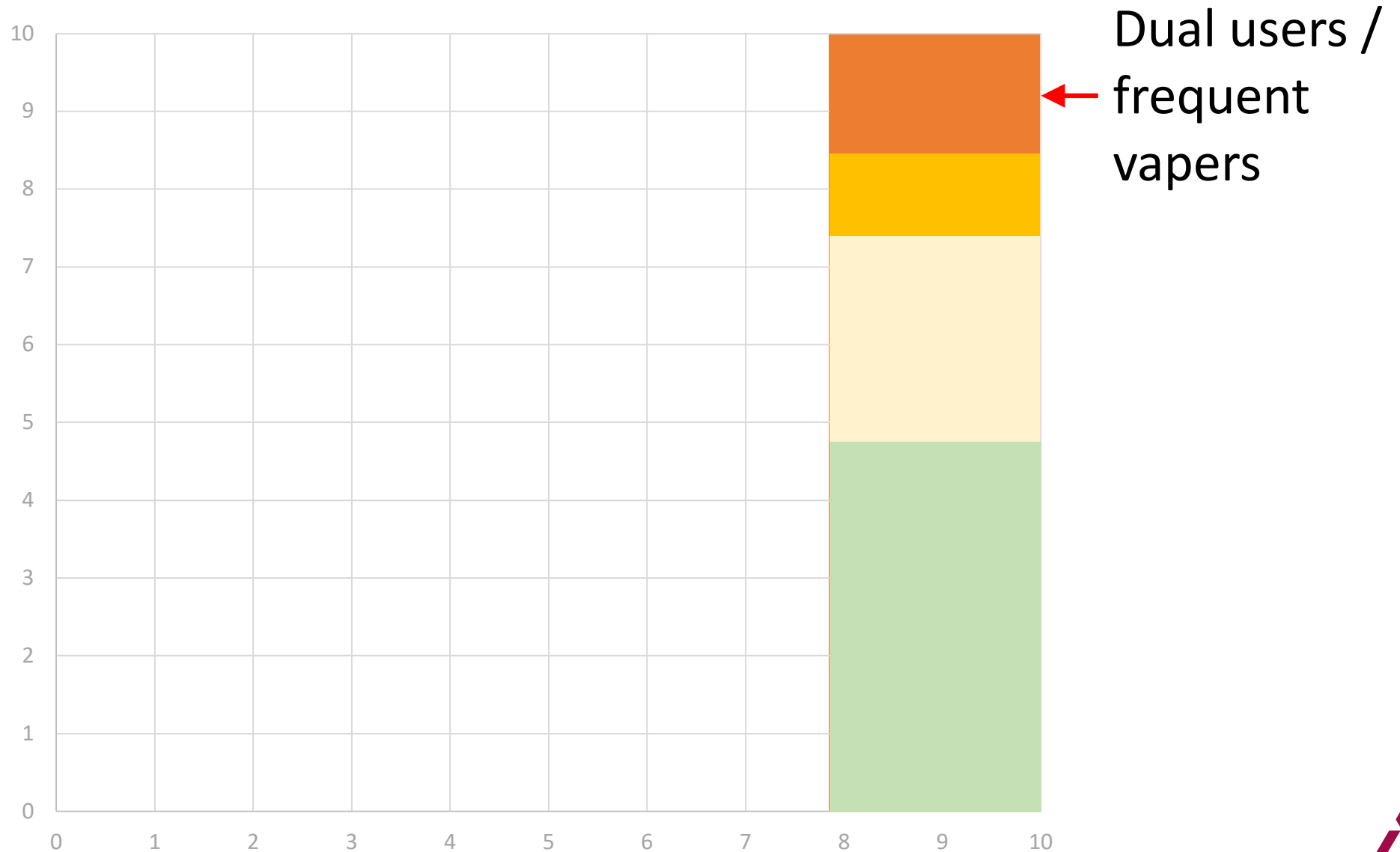
With thanks
to Brad Rodu

Prior to 2018 regular vapers were rarely tobacco-naïve

It remained rare in 2015 for tobacco naïve youth to have reported using e-cigarettes on 10 or more days in the past month (**less than 0.1%**).

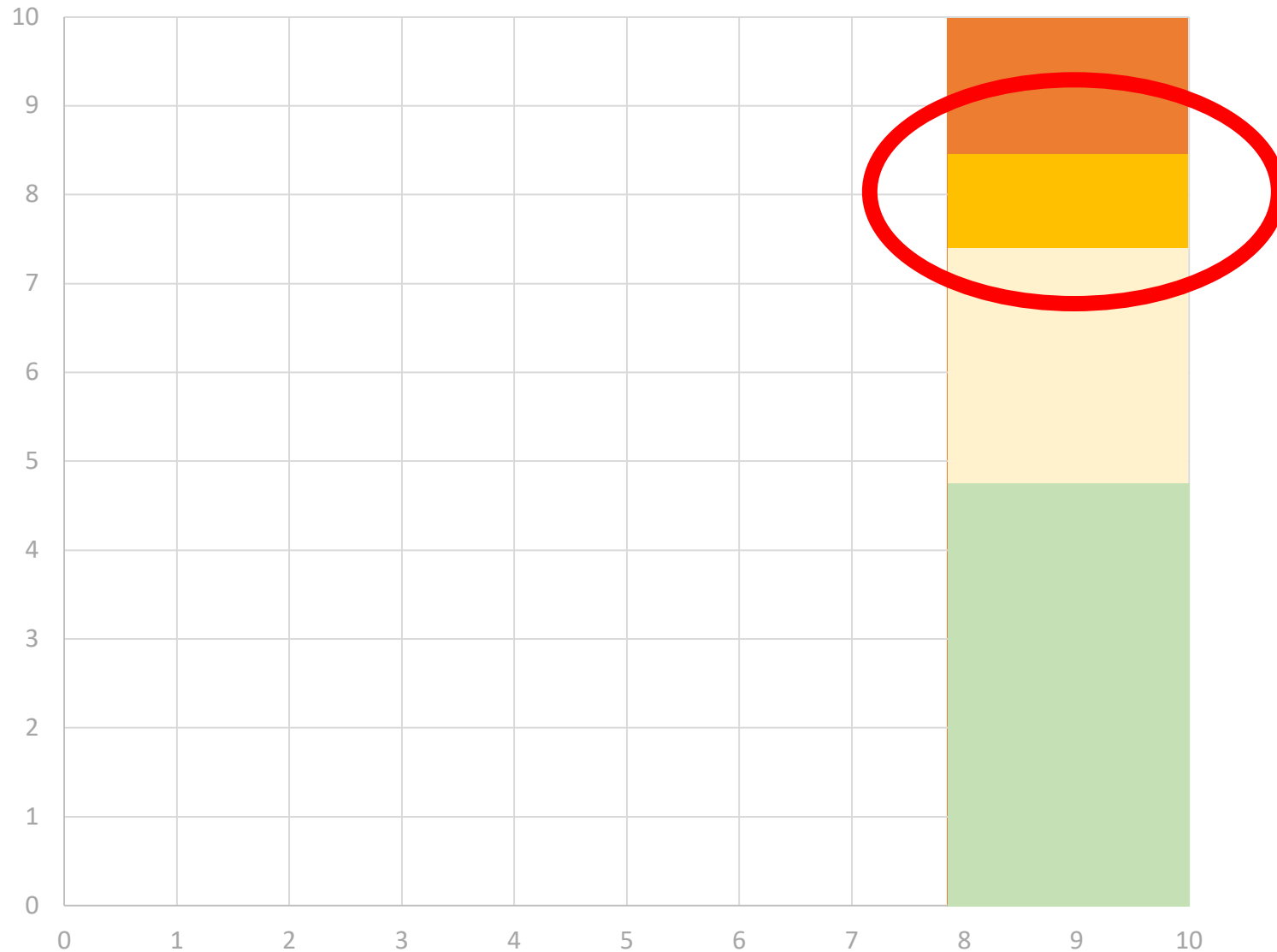
Collins LK et al 2017, Villanti AC et al 2015

Of the frequent vapers, most (58%) are also cigarette or cigar smokers



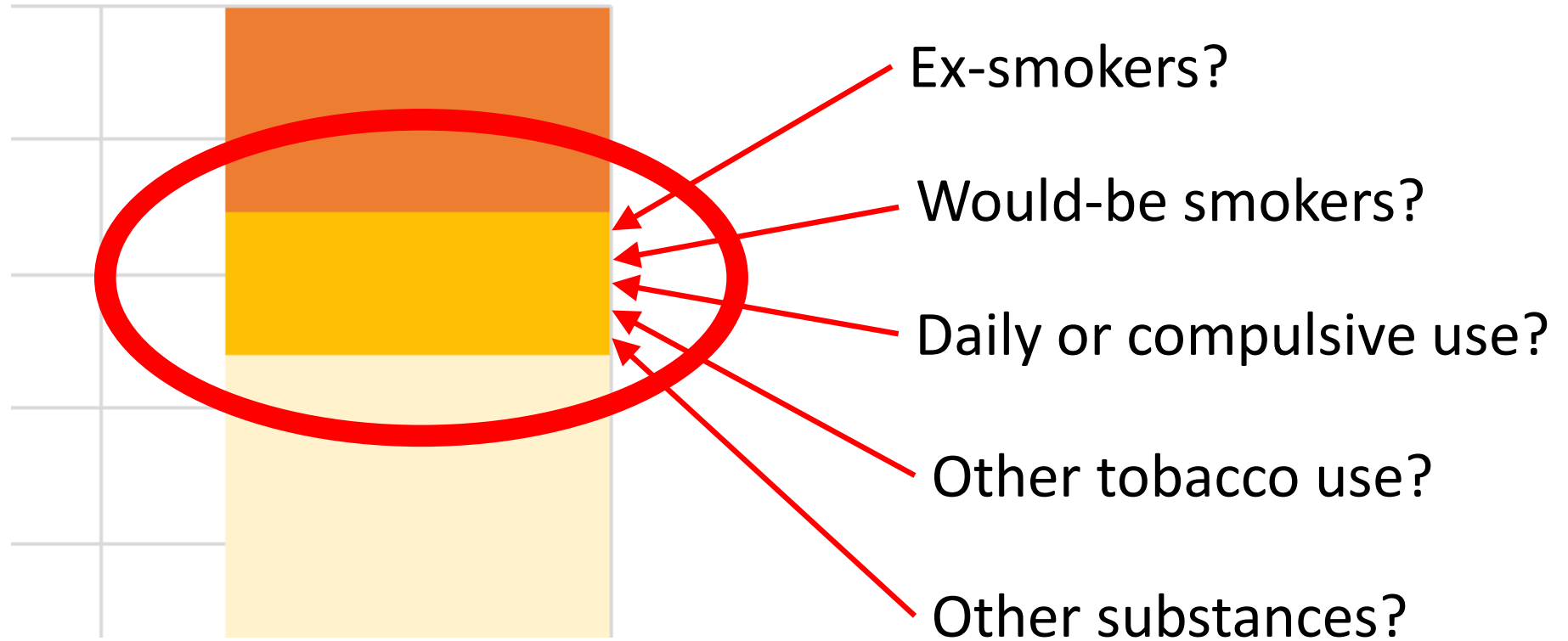
With thanks
to Brad Rodu

Of the frequent vapers, most (58%) are also cigarette or cigar smokers



With thanks
to Brad Rodu

Drill deeper?



2. Tobacco control as if harm matters

In public health, we focus on harm

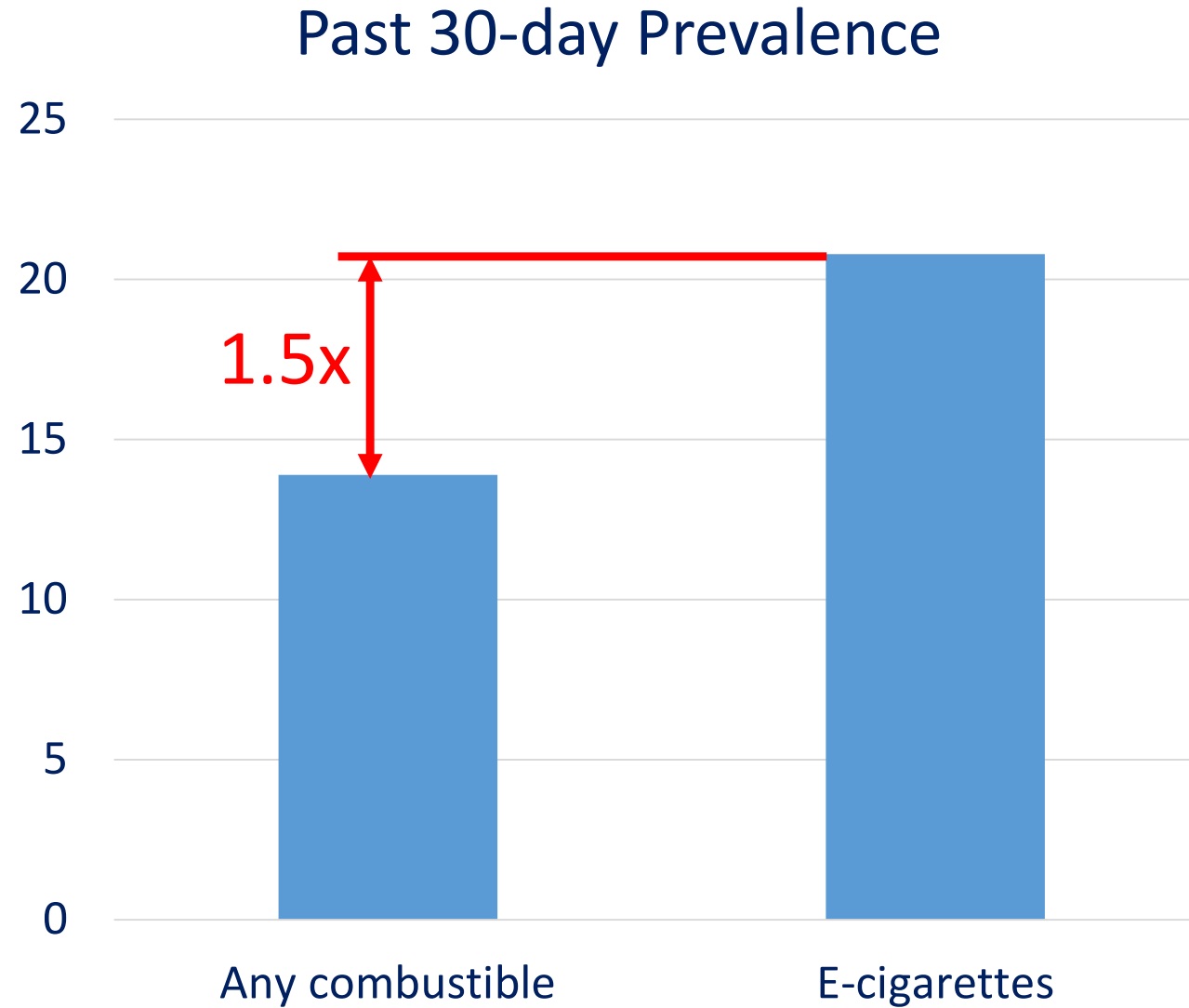
While e-cigarettes are not without health risks, they are likely to be **far less harmful** than combustible tobacco cigarettes.

NASEM

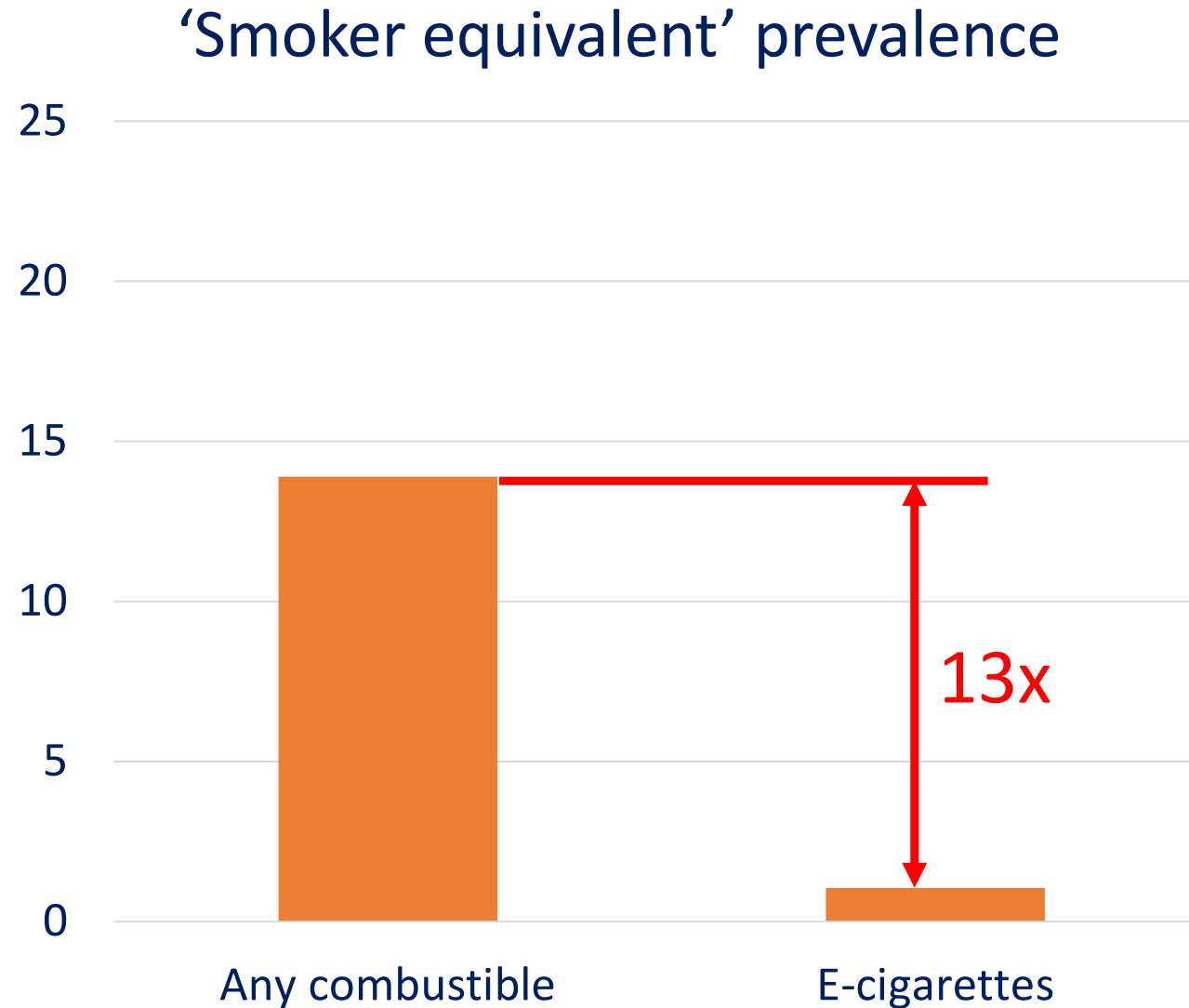
[...] the available data suggest that they are **unlikely to exceed 5%** of those associated with smoked tobacco products and may well be substantially lower than this figure.

Royal College of Physicians

There is now more teen vaping than smoking



But harm-weighting prevalence radically reverses the basis for concern



Illustrative: assumes e-cig use is 5% as harmful as smoking

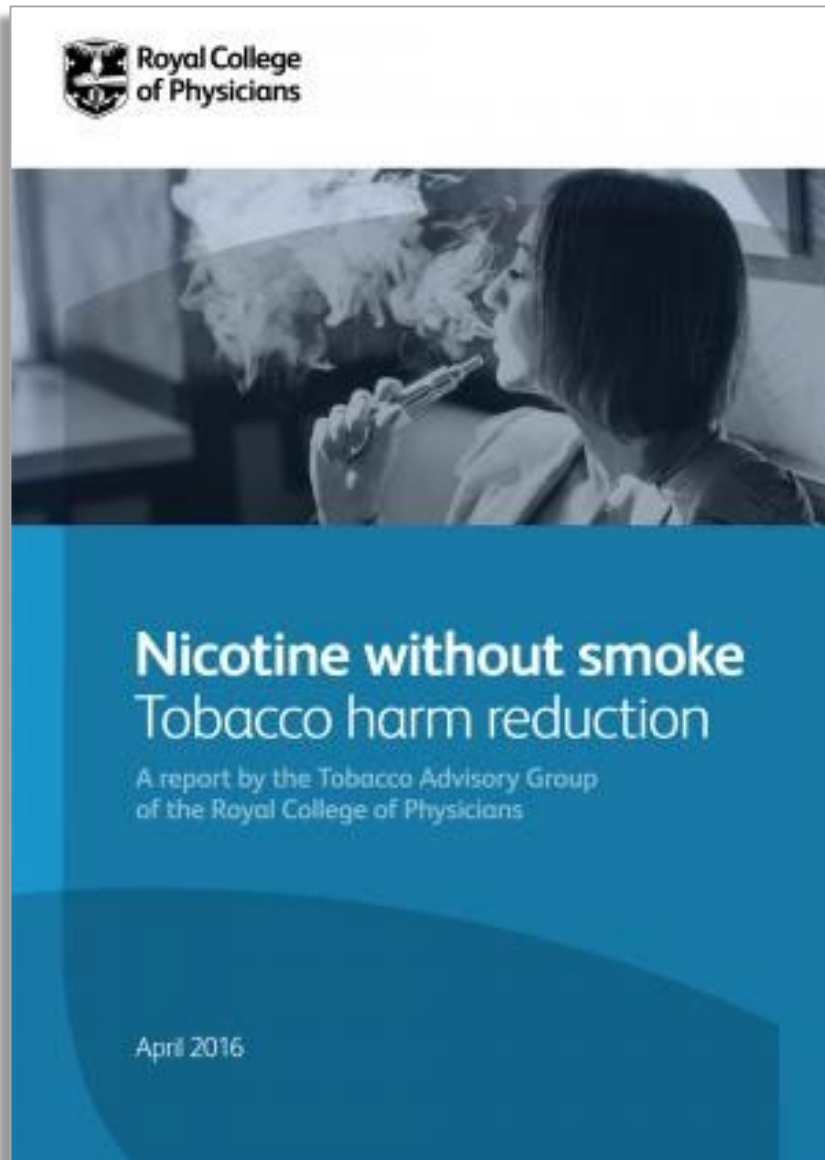


Having lost sight of our goal,
we must redouble our efforts!

Saul Gorn

3. Intervention and unintended consequences

Royal College of Physicians – unintended consequences

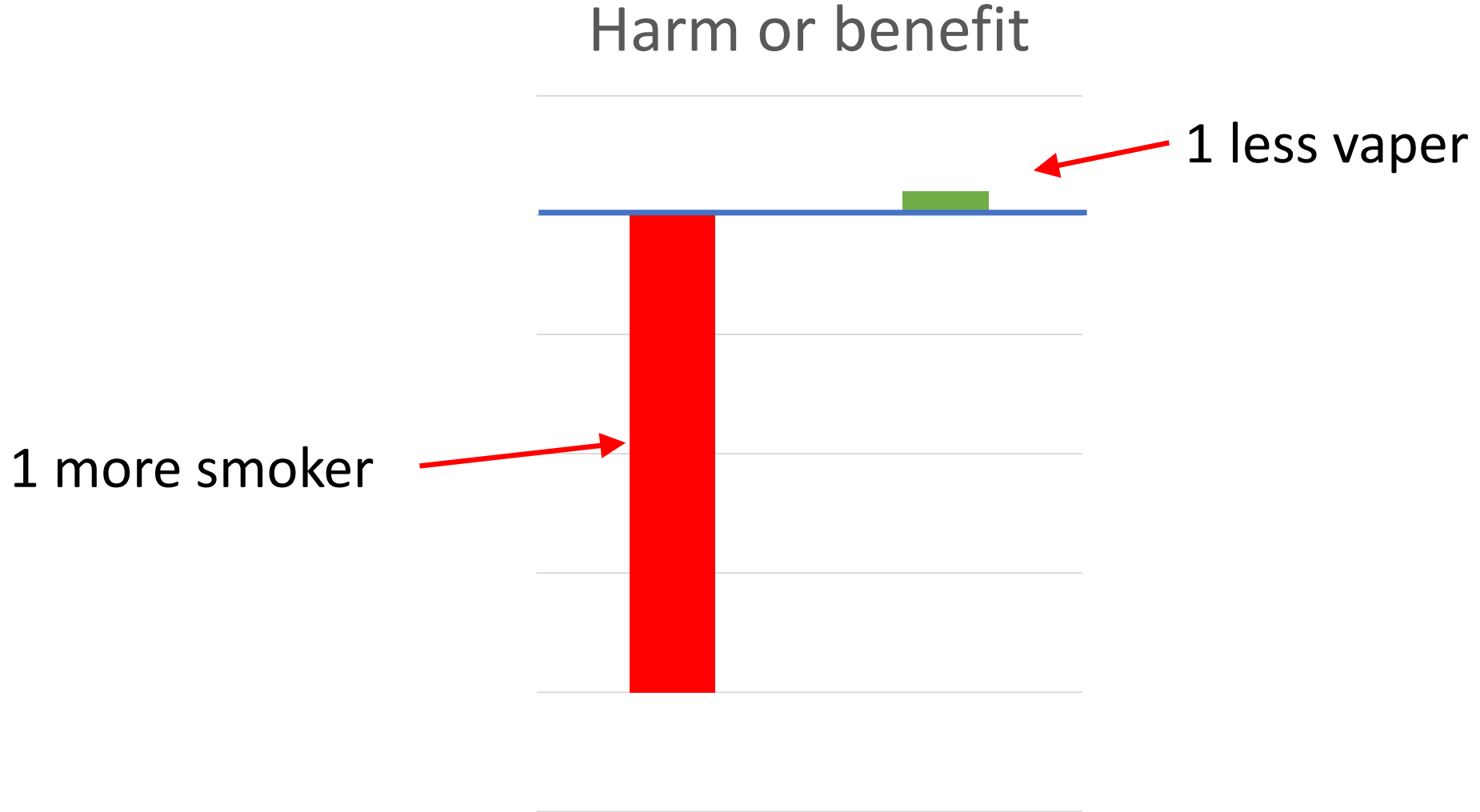


...if [a risk-averse, precautionary] approach also makes e-cigarettes:

- less easily accessible
- less palatable or acceptable
- more expensive
- less consumer friendly
- pharmacologically less effective
- inhibits innovation [...]

...then it causes harm by perpetuating smoking.

Unintended consequences really matter because of relative harm / benefit

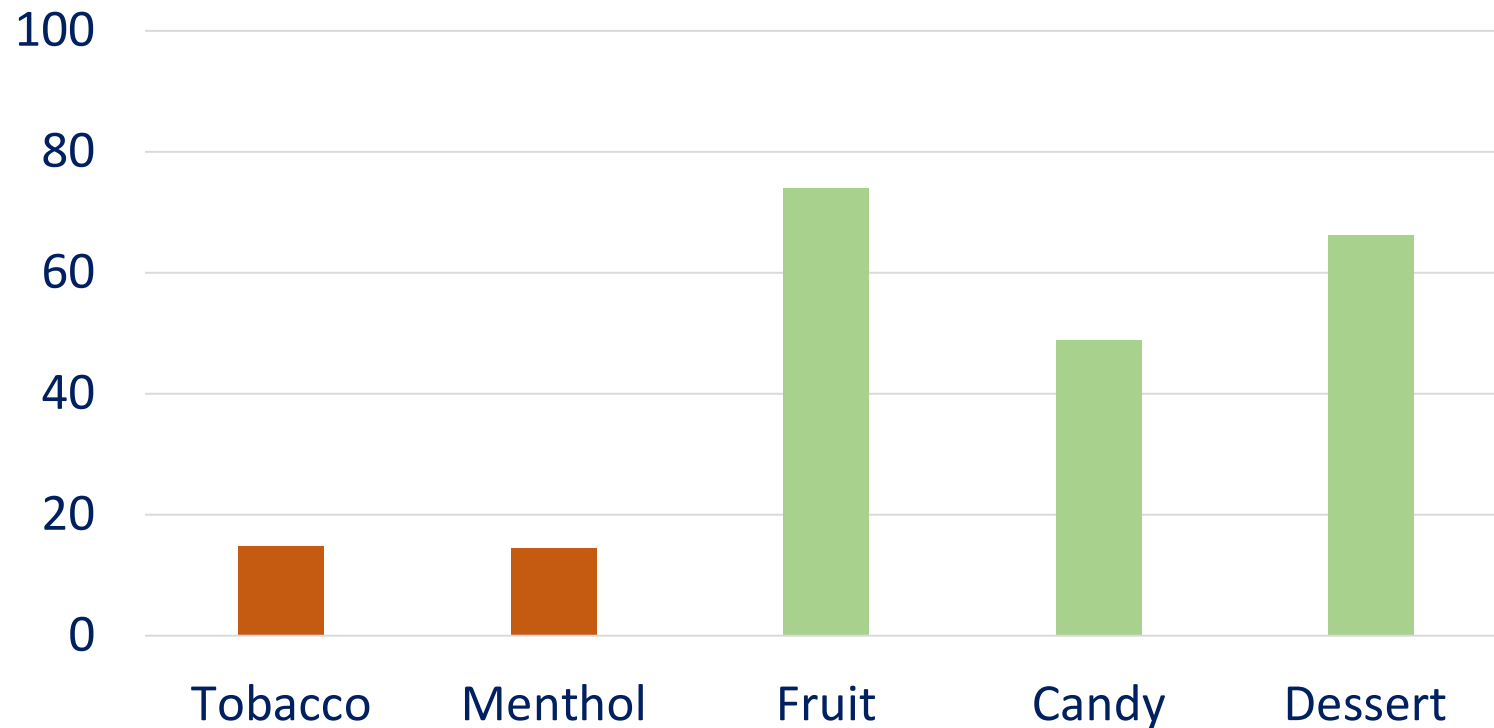


“Ban flavours”



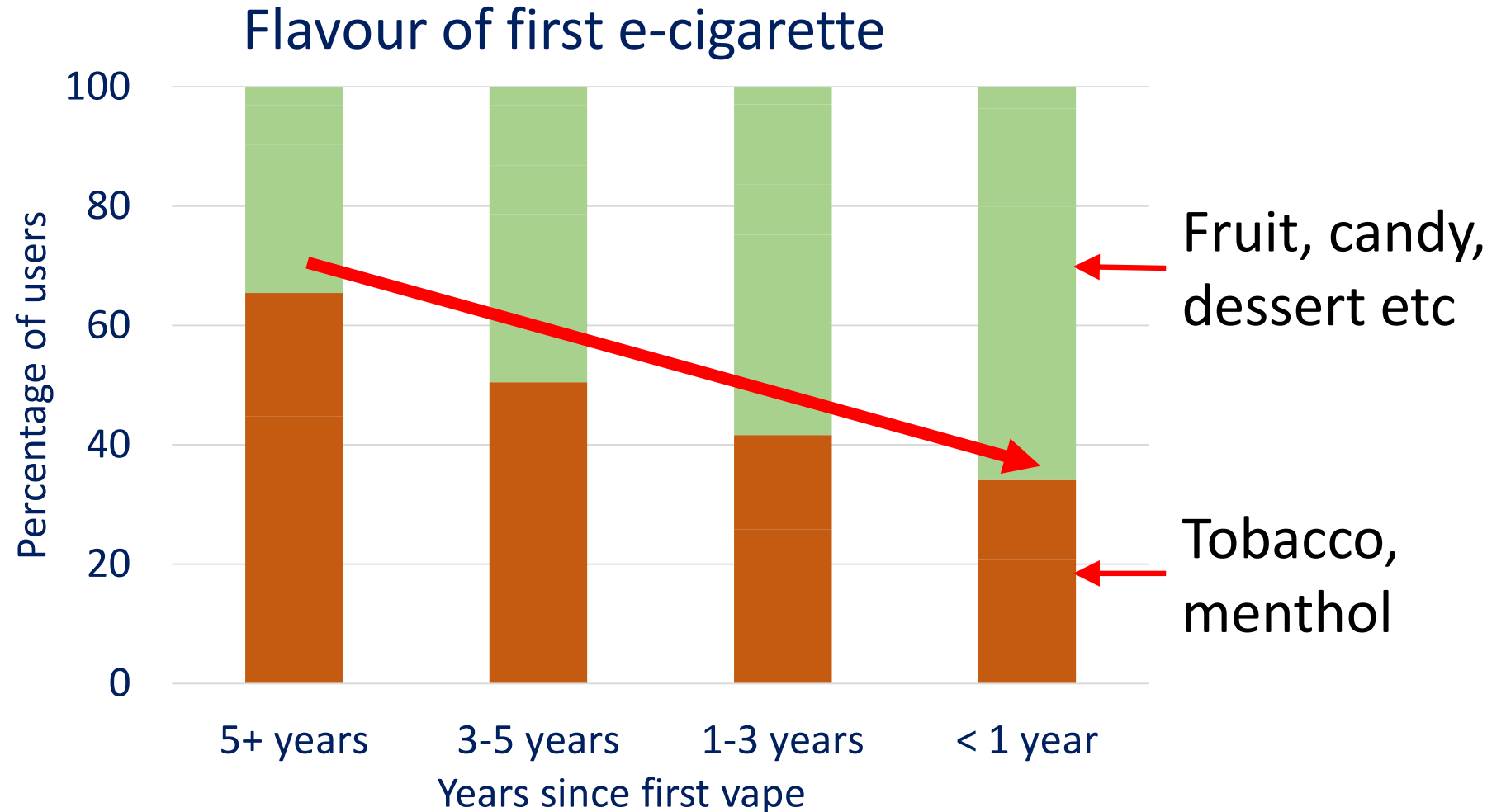
People who have switched strongly prefer non-traditional flavours

Current use of flavours by 15,807 switchers



Source: adapted from Figure 4 in Russell C et al (2018) Changing patterns of first e-cigarette flavor used and current flavors used by 20,836 adult frequent e-cigarette users in the USA, 2019

Non-tobacco/menthol flavors are becoming more important to adult vapers



Source: adapted from Figure 1 in Russell C et al (2018) Changing patterns of first e-cigarette flavor used and current flavors used by 20,836 adult frequent e-cigarette users in the USA, 2019

What youth measures do you propose?

1. Above all, keep a sense of proportion and focus on harm
2. Implement measures that work
3. Do not implement measures that cause more harm than good

Thank you...



The counterfactual

What's the right thing to do? Analytical advocacy - getting beyond the rhetoric of campaigners

www.clivebates.com

@clive_bates