

# Are e-liquid flavours really “hooking another generation of kids”?



Attraction to vaping? Or attraction from smoking? Or just a consumer preference?

Predictably, depressingly, the US anti-vaping lobby has mobilised against a new Cole-Bishop Bill, [HR 1136](#) that would hold off near complete destruction of the industry by grossly disproportionate FDA deeming regulation and implement the first steps in a sensible [reshaping of American tobacco policy](#). But look at the argument they [used](#).

*“By working on what purports to be a technical change, “ Myers said, “ it leaves on the market the candy and fruit-flavored e-cigarettes that are so popular among young people.”*

*“You can put any gloss on it you want, this is the tobacco industry’s effort to continue to market flavored tobacco products to hook another generation of*

*kids.*

You hear this narrative a lot: regulators protecting kids from industry predators bearing flavours as bait. But I just wonder whether the anti-vaping activists have paused to even think about flavours and teens *at all*.

To evaluate the demand to regulate these flavours (by which they mean ban them) you first need a framework for thinking about the issue - and that is not simple and may yield surprises.

Here is how I would think about this...

1. [What is the issue: flavour or descriptor?](#)
2. [What are real youth preferences?](#)
3. [Is the strength of flavour attraction sufficient to change behaviour?](#)
4. [What is the pathway by which a flavour can ultimately cause harm?](#)
5. [Has the possible protective effect of e-cigarette flavours on youth been considered?](#)
6. [What about the possible harm to adults?](#)
7. [How should the balance of risks and benefits be weighed?](#)
8. [Is mention of the tobacco industry just an emotive trick?](#)
9. [Do flavour bans come with harmful consequences?](#)

## **1. What is the issue: flavour or descriptor?**

The first thing is some clarity about what is the object of concern. Is the issue the flavour itself or the flavour *descriptor*? The advocacy literature seems mostly preoccupied with flavour descriptors - "gummy bear" and "cotton candy" are mentioned *a lot*. This takes us into difficult territory - what are flavour descriptors that appeal to kids? And how would you recognise them - they could be anything with youthful cultural references.

Who decides what qualifies as a 'kiddie flavour'? If it is a childish sounding name that is not sufficient to confirm its appeal to adolescents (see below). If it is simply the flavour that adolescents use proportionately more of than adults, then there will always be *something* that is a 'kiddie flavour' and whatever the intention of the manufacturer.

## 2. What are real youth preferences?

Look at the [evidence cited](#) by CTFK and you won't find anything that supports their case. No sales data, disaggregated by age and flavour descriptor, is provided to support the claim. Simply finding a childlike flavour somewhere embedded in the thousands of flavours available from hundreds of vendors does not prove it has any significant impact on youth or in the market as a whole. Yes, you can find that young people use some sort of flavour. Of course they do - almost all e-liquids are flavoured with *something*. But where is the evidence that often-cited flavours like Gummy Bear, Cotton Candy and Candy Crush actually have a material role in youth vaping, let alone a causal role in creating it?

It appears that many activists just *assume* that a childlike flavour will appeal to an adolescent more than any other flavour. But why? This literalist view defies all we know of the contrarian human condition known as 'teenager'. It is not obvious that the type of adolescents who take up vaping would wish to reinforce a child-like image. Would teenage vapers prefer *Scorpion Venom* or *Cotton Candy* flavour? Equally, child-like flavours or descriptors may have a retro appeal to adults and be marketed to appeal to adults. So we should ask: is there a measurable bias in youth preferences to certain types of flavour/descriptor? Are preferences random? How do they diverge from adults, if at all? What evidence really suggests that kids are attracted to a certain flavour category and that these are the flavours that happen to sound childish? Are young people being asked 'no-brainer' survey question and the results misrepresented? A much-cited example of the reasons given for using e-cigarettes comes from [Ambrose et al in JAMA, 2015](#) is a useful illustration:

*Leading Reasons for Non-cigarette Tobacco Product Use Among Past 30-Day Tobacco Users, by Product - Population Assessment of Tobacco and Health Study Youth Respondents Aged 12-17 Years, 2013-2014*

Reasons for Use	% (95% CI)
	e-Cigarettes (n = 418) <sup>c</sup>
I use [product] because they come in flavors I like	81.5 (77.9-85.0)
I use [product] because they are affordable	47.8 (42.9-52.6)
I use [product] because I can smoke/use them at times when or in places where smoking cigarettes isn't allowed	58.9 (54.1-63.7)
I use [product] because I like socializing while using them	40.3 (34.9-45.8)
I use [product] because it doesn't bother non-tobacco users	53.9 (48.1-59.8)
I use [product] because they might be less harmful to me than cigarettes	79.1 (75.2-83.0)
I use [product] because they might be less harmful to people around me than cigarettes	78.1 (74.3-81.8)
I use [product] because they don't smell	58.7 (54.2-63.2)
I use [product] because they help people to quit smoking cigarettes	59.5 (54.6-64.5)
I use [product] because people who are important to me use them	34.9 (30.6-39.2)
I use [product] because people in the media or other public figures use them	36.1 (31.5-40.7)

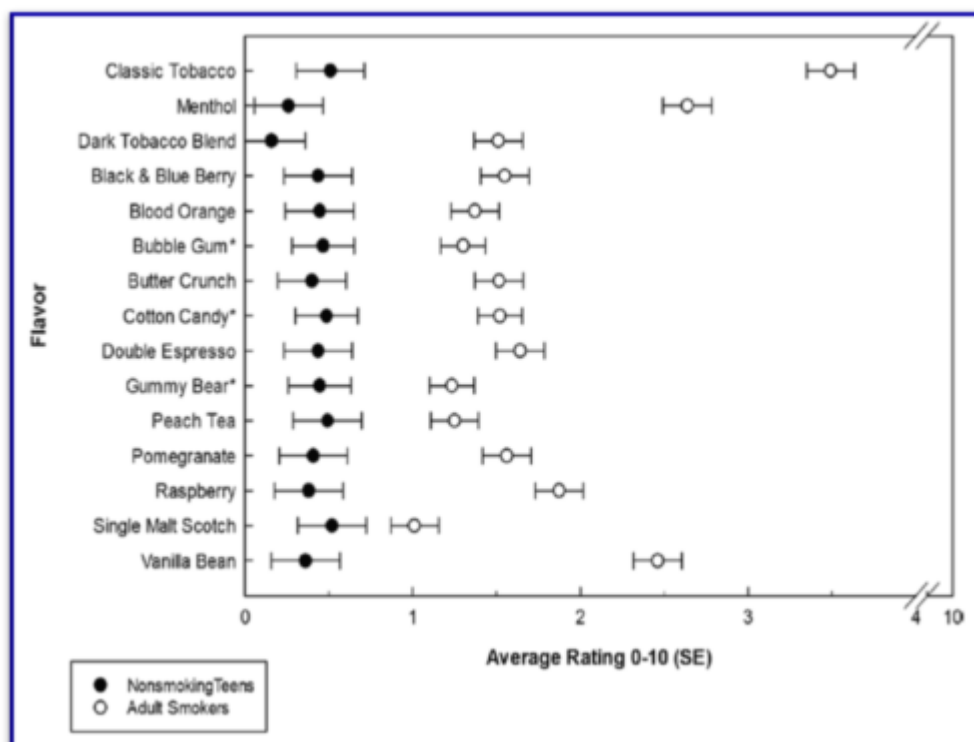
This table illustrates the danger of overinterpreting surveys of what kids say they are doing to be the reasons why they are doing it. The subjects were presented with a yes/no choice for each of the reasons given. It is true that they answered 'yes' to the first question - they like the flavours. But isn't this an obvious answer if you have already decided to vape? Given you didn't have to choose only one answer, who would answer 'no' to that question: "*No, I don't use the product because they come in flavors I like*"? Or, try inverting the question to show its absurdity. Who would answer yes to "*I use [the product] even though they come in flavours I don't like*?" for a consumer product? Of course, if they did have that answer, we would be genuinely concerned at the loss of self-control.

Also, note how many teens do give positive, pro-health reasons for vaping: less harmful than cigarettes (79.1%); less harmful to people around me (78.1%); help people to quit (59.5%); doesn't bother non-tobacco users (53.9%). Compared to a

statement of the obvious about something you choose to use those results are more interesting but are largely overlooked by anti-vaping activists.

### 3. Is the strength of flavour attraction sufficient to change behaviour?

But identifying what is attractive is only the first stage of the reasoning. There is a difference between a consumer preference for products within a category and an attraction so strong that it can stimulate initiation in non-users. Many flavour preferences will merely be an expression of consumer choice among those already vaping and who would vape anyway - not the primary reason for vaping. The [Saul Shiffman \(et al\) paper](#) showed that these descriptors exerted a *weak attraction* on non-users, scoring 0.4 on a 10-point scale of interest to non-user teens.



Note that this survey showed highest teenage interest in single malt scotch flavour (though not statistically significant) - see point 2 above. The Shiffman et al paper is debated [here](#).

So where's the evidence that a flavour category causes young people to start vaping, or more precisely, is so significant that its absence (via a ban) would prevent young people taking up vaping in any significant numbers, given there are thousands of flavours that are not candy or fruit? Obviously, vendors don't

go out of their way to make the products unattractive. If they tasted awful then no-one would use them – but this is not the same as saying that a particular flavour category is a tactic to attract adolescents.

## **4. What is the pathway by which a flavour can ultimately cause harm?**

To show harm, the flavour or descriptor attraction would need to be powerful enough to cause initiation in a young person who would not otherwise vape or prevent them stopping vaping. This vaping would have to develop into a habit that we would class as a risk behaviour, that is an entrenched daily habit, not just being a kid messing around trying to blow big fragrant clouds (much use is experimental and without nicotine\*). Vaping among young people is in itself a ‘small harm’ because of the much lower risk of vaping compared to smoking. It only becomes a ‘big harm’ if the user progresses to smoking and would not otherwise have done so. So a gateway effect would be needed to turn this into a significant cause for concern, in which the specific causal driver is a flavour/descriptor. There is nothing that suggests this pathway is significant.

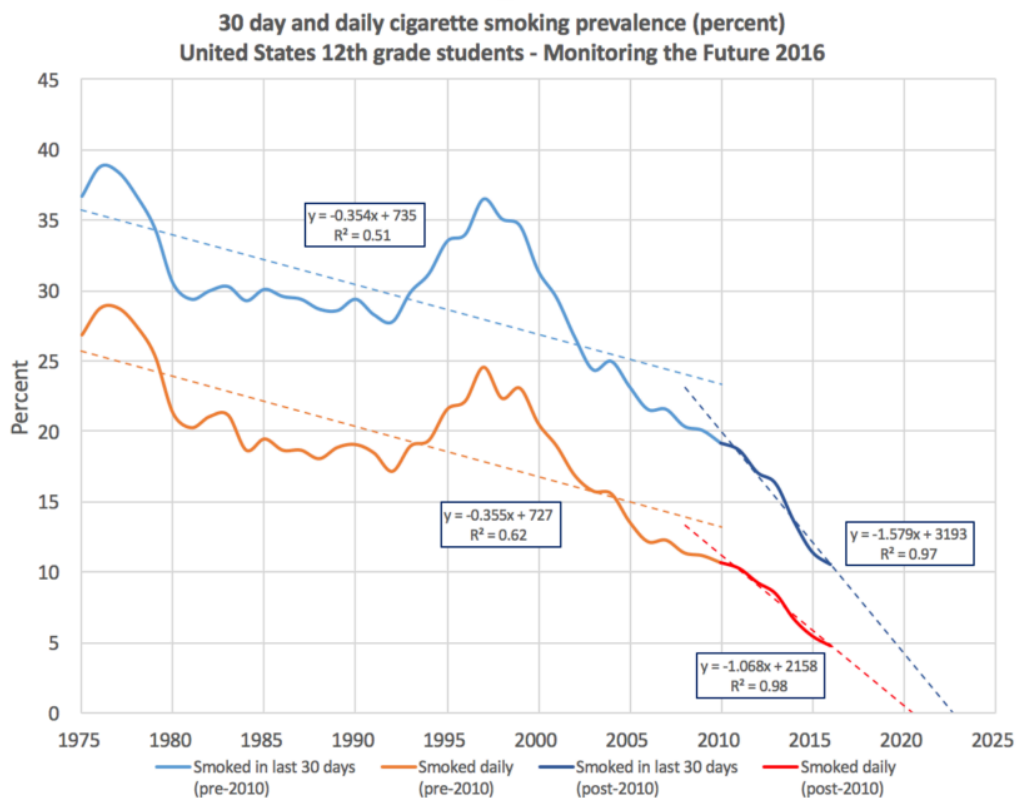
- \* Warner KE. Frequency of E-Cigarette Use and Cigarette Smoking by American Students in 2014. Am J Prev Med. 2016 Aug;51(2):179-84. [[link](#)]
- \* Miech R, Patrick ME, O’Malley PM, Johnston LD. What are kids vaping? Results from a national survey of US adolescents. Tob Control.; 2016 [[link](#)].

## **5. Has the possible protective effect of e-cigarette flavours on youth been considered?**

Hardly ever discussed is the much more likely protective effect that attractors to vaping would exert. That arises if young people who would otherwise smoke take up vaping instead or use vaping to quit smoking. If vaping displaces smoking among young people, then strong attractors to vaping would play a positive role in this group. The same applies to marketing and promotion. The converse is that banning these attractors (if they are real) may have a harmful effect. Banning things to do with vaping is not a one-way bet for better health, for either adults or adolescents, it may just mean they smoke instead. It is important that we keep coming back to what is happening with smoking:



It is important that we keep coming back to what is happening with US teen smoking - the decline in 12th-grade cigarette smoking is three times the average long-run rate prior to 2010. If flavours really are hooking kids, then something else quite remarkable must be going on.



It is true that there has been a sharp rise in e-cigarette use among teens (used in last 30 days), BUT much of this is experimental (kids messing around a few days a month) and without nicotine.

## 6. What about the possible harm to adults?

The most important at-risk population is middle-aged adult smokers who cannot or do not want to quit nicotine. For them, vaping is a potential life-saving response to the 'big harms' and mounting risks of decades of smoking. If they have preferences for the flavours/descriptors that are banned or marginalised from the market (and we know these supposedly child-like flavours are widely used by adults) then there is a likely detriment to adult smoker health to consider.

[One survey of adult vapers](#) found:

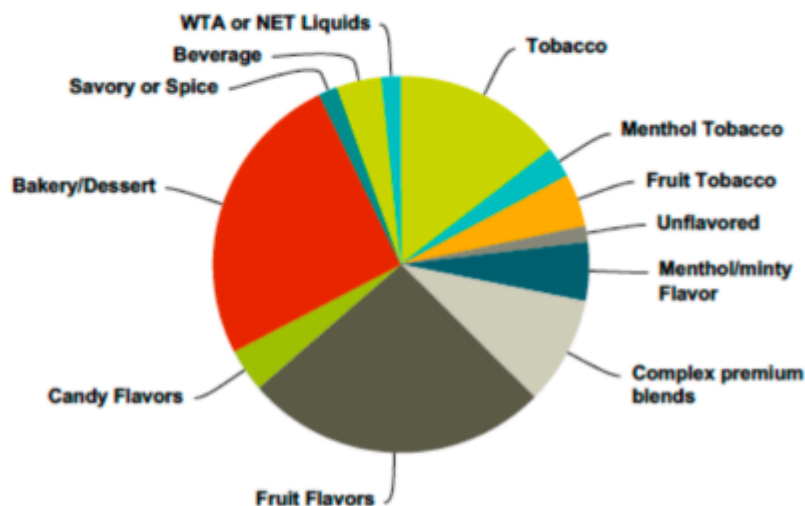
*The results of this survey of dedicated users indicate that flavours are marketed in order to satisfy vapers' demand. They appear to contribute to both perceived*

*pleasure and the effort to reduce cigarette consumption or quit smoking.*

And here is data from the 2015 ECF Big Survey of adult forum members (not a representative sample of the public) showing that fruits are important for a quarter of the sample and only around one quarter are using the tobacco flavour.

**Q69 What flavor e-liquid do you use mostly? Choose the category that applies most closely. If you like to mix things up a lot, please choose the last category you used.**

Answered: 9,535 Skipped: 1,181



## **7. How should the balance of risks and benefits be weighed?**

It isn't straightforward - things that make vaping attractive may be attracting adolescents away from smoking and helping adult smokers quit. On the other side, there may be some attraction of non-users to vaping but this is difficult to demonstrate and, in any case, does not carry high risks. So how to weigh up the balance of detriment and benefit?

Given most youth vaping is by young people who smoke or would be likely to smoke, then it is likely that any benefits to this group (avoiding 'big harms') greatly outweigh detriments (incurring 'small harms') to the small group of young people who otherwise would never smoke but take up vaping because of a flavour/descriptor. There is the imperative not to place obstacles in the way of



adults escaping serious risks by making the products less appealing to them.

## 8. Is mention of the tobacco industry just an emotive trick?

Integral to the campaigning rhetoric of the anti-vaping activists is to link as much as possible to Big Tobacco - the industry with the worst reputation and most baggage. One can see how that works in campaigning, but is the industry actually doing what is attributed to them? Mike Siegel points out they are not. See his post [\*Lying for Money: Campaign for Tobacco-Free Kids Solicitation is Fundamentally Dishonest\*](#). Siegel shows how activist marketing and campaigning have parted company with reality by listing the flavours of the main tobacco companies operating in the US (December 2016).

- *Altria's MarkTen e-cigarettes come in four flavors: classic (tobacco), menthol, fusion, and winter mint. Their MarkTen XL Bold e-cigarettes only come in two flavors: classic and menthol.*
- *R.J. Reynolds Vapor Company's Vuse e-cigarettes come in seven flavors: original, mint, melon, nectar, berry, chai, and crema.*
- *Imperial Brands' blu e-cigarettes come in 14 flavors: tobacco, menthol, vanilla, cherry, blueberry, peach schnapps, strawberry mint, Carolina bold, pina colada, mint chocolate, glacier mint, caramel cafe, gold leaf, and berry cobbler.*
- *British American Tobacco's Vype e-cigarettes come in 12 basic flavor types: tobacco, apple, master blend, vanilla, mint, wild berry, green snap, scarlet kick, indigo dive, dark cherry, oriental spice, and rich aniseed.*

These companies, cowed by the courts and ruled by lawyers, are now the least likely to do anything that resembles marketing to teenagers, and the list above shows little sign of doing what anti-vaping activists accuse them of. So there is no basis to link the tobacco industry to this anti-vaping claim unless you define anyone in the entire vaping industry as 'the tobacco industry' as part a smear-by-association gambit.

## **9. Do flavour bans come with harmful consequences?**

I am not suggesting that we research what flavours attract young smokers to vaping, and market these in schools! But if flavours are the potent attractor that critics say, it is far from obvious that this is a bad thing for either youth or adults - and bans may come with harmful consequences. It is far from clear that flavour descriptors do actually have the pulling power or that the flavours that critics focus on are in fact what makes a difference to behaviour.

The point is that if vaping products do substitute for smoking, then things that attract people to them are good for health. The massive emotional muddle that surrounds this issue needs more clarity and more focus on the pathways by which harm would arise or, more likely, be reduced.