

Rapid proliferation of illegal pod-mod disposable e-cigarettes

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Under pressure from the US Food and Drug Administration (FDA), JUUL Labs suspended sale of cucumber, crème, fruit and mango flavoured pods in US brick and mortar retail stores in November 2018 as part of the company's plan to prevent youth e-cigarette use. Subsequently, mint flavour surged in popularity, against a backdrop of continued increases in youth e-cigarette prevalence.¹ In October 2019, JUUL Labs halted sales of most of their flavoured pods, including mint, in retail stores and online, with the exception of menthol and tobacco. Other companies quickly capitalised on these actions and produced JUUL-compatible pods in a variety of flavours, including the most popular JUUL flavours (eg, mango, cucumber).²

In September 2019, we received anecdotal reports that a new vaping product—a disposable 'pod-mod', closely resembling JUUL—was popular among college students at a Kean university. We subsequently searched a sub-Reddit forum dedicated to JUUL to find mention of disposable 'pod-mods' which began appearing late Spring 2019. Brands mentioned in these threads included 'Posh', 'Eon Stik' and 'Mr. Vapor,' and comments focused on tasting similar to JUUL flavours, lasting longer than a JUUL pod and having a good 'hit' like a JUUL; posted images highlight the similar physical dimensions to JUUL.^{3–5}

In October 2019, our staff noticed point-of-sale advertising for two brands of disposable 'pod-mod' (fruity and Pop) in a convenience store near Rutgers University and purchased both products for less than \$10 each. The fruity brand disposable 'pod-mod' package indicated that the product was 'infused with flavors by Eonsmoke', a company which makes a variety of flavoured JUUL compatible pods. The package for Pop directed us to their website,⁶ which featured an eye-catching video communicating that the product was 'Easy, Tastes Good, No Filling, No Charging' and to 'Vape it and Forget it'.

Additional searches of vaping websites yielded a growing list of disposable pod-mod brands, including but not limited to: 4X St!k, Blow, Cali pods, Eon Stik, fruyt, HYDE, instaPod, Just Mango, KASH BY Gost, Myle, Mr. Freeze, Mr. Vapor, Nic Stix, Phantom, PopVapor, Plus Pods, Posh, Puff bar, Rush, Sea Stix, SixT, SMOQ and Ziip. As shown in figure 1, two packaging styles dominate—a cardboard box or plastic case, where the disposable 'pod-mod' is visible. Most devices have approximately the same dimensions as JUUL. In contrast to JUUL, the devices themselves are artistically designed with bright colours and graphic elements.



Figure 1 Packaging of JUUL-like disposable vape stiks.

All brands promote multiple flavours. The use of menthol or 'ice' flavours that evoke the cooling sensation of menthol (eg, Blueberry Menthol, Lychee Ice) was common; one out of three flavours for the brands listed above found in our online searches were menthol or 'ice'. Two out of three brands listed above indicated the use of nicotine salts and all brands had nicotine concentrations of 5% or greater. Seven brands (4X St!k, Eon Stik, fruyt, Phantom, Pop Vapor, Plus and KASH by Gost) exceeded 5% (range: 5.9%–6.8%) which is notably higher than JUUL pod strengths (ie, 3%, 5%).

On 24 October 2019, FDA sent a warning letter to Eonsmoke indicating that they were illegally marketing 96 new tobacco products, introduced after the deeming regulations, without marketing authorisation.⁷ The list did not include any of these 'pod-mod' disposables, but Eonsmoke makes at least two brands of these disposables. In our review of FDA warning letters, we did not find any issued for 'pod-mod' disposable products. These products, unequivocally introduced after deeming in August 2016, are likely on the market illegally without FDA authorisation.

FDA's latest warning mandates that Eonsmoke correct violations for *any* unauthorised product, including those not named in the letter. Disposable 'pod-mods' warrant special attention given the potential appeal to youth. Indeed, these products are similar to JUUL—the brand driving high rates of youth vaping¹—in form and function: they are nearly identical in size and also contain nicotine salts, enabling stronger nicotine delivery. More concerning, disposable pod-mods flaunt diverse flavour offerings, high nicotine concentration, colourful marketing and low pricing. Additionally, the FDA is required to consider the environmental impact associated with manufacturing a new product; as a 'single use product', disposable pod-mods further contribute to plastic waste and microplastic pollution, which is a growing health concern.



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On January 2, 2020, the FDA took aim at flavoured (other than menthol or tobacco) pod-mode-cigarettes, like Juul, that appeal to young people, requiring these products to be removed from the marketplace within 30 days. However, the finalised enforcement policy appears to exempt disposable e-cigarettes.⁸ This potential loophole must be closed and FDA should immediately remove these illegal disposable pod-mod products, which lack marketing authorisation, from the marketplace. Moreover, local and state jurisdictions could pass legislation to ban the sales of any tobacco products which do not have FDA marketing authorisation. Failure to act on disposable pod-mods may threaten progress to curb high rates of vaping among young people.

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