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# Playtime: vaping devices designed as cartoons and toys may appeal to kids

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Vaping device technology and appearance have transformed from cigarette lookalikes to mod devices, to the discreet and colourful designs of JUUL and its many offshoots. Recent innovations in vaping devices include those that resemble miniature toys, including soda bottles, snow cones and popsicles (figures 1–3). These products piggy-back on the popularity of toy miniatures, driven by TikTok and other social media sites.<sup>1</sup> By manipulating device design in this way, vape manufacturers can increase marketability of their device, appeal to younger demographics and potentially increase the uptake of vaping.

Regulating the vaping industry to prevent uptake by youth has largely focused on flavours or e-liquid packaging that appeal to children. Facing increased regulation, vaping device manufacturers have become more creative with the device design. For example, vapes that appear like mini-boba cups went viral on social media in late 2022 (figure 4). These vaping devices are available for purchase around the world, including in the USA or from manufacturers abroad to be shipped to the USA.

Device designs that resemble toys, candy or other consumables have the potential to entice youth. The designs may give the impression that the products are less dangerous, while inhaling through a small bendy straw may encourage youth to experiment. The designs may motivate youth who only vape socially to purchase their own devices and turning the devices into collectable items may lead youth to purchase multiple devices rather than just one at a time. Vaping



**Figure 2** NATURAL Disposable Vape 6000 Puffs – Pineapple listing on vape store website. Image sources from website listing in November 2022 (<https://www.vapestore.to/product/natural-disposable-vape-6000-puffs-pineapple/>).

devices that resemble popular toys may also hide the product's true purpose and facilitate stealth usage by youth. The likelihood that youth can



**Figure 1** Product photo for the Snowwolf Ease 8000 Puffs Disposable e-cigarette. Publicly available photograph sourced from the SnowWolf Website in November 2022 (<http://www.snowwolfvape.com/Product/Disposable/170.html>).



**Figure 3** Product photo for Eliminate 6000 Puffs Disposable Coke-Bottle Shape with 15ml Prefilled Eliquids. Publicly available photograph sourced from the Eliminate Website in November 2022 (<https://www.eliminatevape.com/disposable-vape/eliminate-6000-puffs-disposable-coke-bottle-shape-with-15ml-prefilled-eliquids>).



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**Figure 4** Viral tweet commenting on the design of e-cigarettes and availability of e-cigarettes with photographs showing they look like boba drinks, come in different flavors, and have straws. Publicly available photographs and caption were sourced from the public twitter account of user “@h3llok1ttyube” in November 2022 (<https://twitter.com/h3llok1ttyube/status/1582065537403654150?s=20&t=A5hfXrr1IHncAjTQvqAogA>).

use these products without discovery is increased with added elements by some manufacturers, such as making the device look like a novelty keychain. The designs could also potentially confuse young children who mistake the true purpose of these devices and increase accidental exposures.

To date, tobacco researchers have explored how devices that can be used discreetly can impact vape device usage,<sup>2</sup> but further research is needed on the impact device characteristics have on youth perceptions, access and use. Regulatory agencies must consider taking steps to regulate device features such as colour, size and style to prevent designs that would entice children or be marketed based on their aesthetic appeal to youth. In November 2022, the US Food and Drug Administration (FDA) issued warning letters to five firms for the unauthorised marketing of 15 different vaping products

that look like toys, food or cartoon characters and are likely to promote use by youth.<sup>3</sup> Brian King, PhD, MPH, director of the FDA’s Center for Tobacco Products, noted at the time that the ‘The designs of these products are an utterly flagrant attempt to target kids’.<sup>3</sup> Despite the FDA’s warning of potential injunction, seizure and/or civil money penalties, products identified in this paper remained available for purchase in the USA as of late February 2023, suggesting that control of such products requires stronger surveillance and enforcement of violations and cross-national cooperation.

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#### REFERENCES

- 1 Levin C. The gigantic joy of collecting teeny-tiny things. *slate*. 2021. Available: <https://slate.com/human-interest/2021/05/obsessed-with-tiny-things-mini-brands-collectibles.html> [Accessed 21 Feb 2023].
- 2 Dormanesh A, Allem JP. New products that facilitate stealth vaping: the case of SLEAV. *Tob Control* 2022;31:685–6.
- 3 FDA News Release. FDA warns firms for selling illegal E-cigarettes that look like toys, food, and cartoon characters. companies must stop marketing unauthorized products or risk enforcement. 2022. Available: <https://www.fda.gov/news-events/press-announcements/fda-warns-firms-selling-illegal-e-cigarettes-look-toys-food-and-cartoon-characters>