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New recreational nicotine lozenges, tablets, gummies and gum proliferate on the US market

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In recent years, several major tobacco companies have rapidly expanded their offerings in what they frequently term ‘modern oral’ products or oral tobacco products marketed for recreational use beyond traditional forms like chewing tobacco or snus.^{1,2} While the rising popularity of nicotine pouches (tobacco-free oral nicotine products similar to snus) has already been noted in the literature,^{3,4} the availability and trends in consumption of other newer oral products are yet to be documented.⁵ These emerging product types, including recreational nicotine lozenges, tablets, gummies and gum, are now available from several major tobacco manufacturers in the USA. While these products were preceded by other oral or dissolvable tobacco products like Camel Orbs and Marlboro Sticks, these brands were generally unsuccessful and were pulled off the market in the early 2010s.⁶

Nicotine lozenges are flavoured, candy-sized oral products which, as described by one manufacturer, ‘dissolve slowly in the mouth’ over 8–10 min⁷ and are sold in small, colourful plastic containers (see [figure 1](#)). In contrast, nicotine tablets have a similar appearance but are ‘quick dissolving’.⁷ Finally, recreational nicotine gum is similar in appearance to nicotine replacement therapy (NRT) gum but is explicitly marketed as a recreational product, with one manufacturer describing it as ‘a convenient and satisfying way to enjoy nicotine’.⁸ Another nicotine product alternative available for purchase in convenience stores in the USA is nicotine gummies, for example, the ‘NICables’ brand manufactured by Reel World Brands (see [figure 2](#)), which are marketed as ‘a sweet alternative for adults’ and described as ‘supplements’ on product packaging. Since the Food and Drug Administration (FDA) lacks the authority to regulate supplements,⁹ this may be an attempt to circumvent regulation. While NICables has no online presence, vendor promotion of these products on social media is beginning to emerge.¹⁰

These products are currently sold by at least four manufacturers in the USA, including two major international tobacco companies. Under the ‘Velo’ brand,¹¹ British American Tobacco (BAT) currently sells both hard and soft nicotine lozenges, available in berry, mint, dark mint and crema flavours.¹² Swisher International, under the ‘Rogue’ brand,² currently sells nicotine lozenges, nicotine tablets and nicotine gum⁷; these are sold in flavours including citrus, peppermint, wintergreen and fruit.⁷ Alongside BAT and Swisher International, two other manufacturers are also currently present in the USA: Lucy sells both recreational nicotine gum

(available in wintergreen, pomegranate, cinnamon, mango, mint, berry citrus and espresso flavours)¹³ and nicotine lozenges (available in mint, cherry ice and citrus).¹⁴ Under the brand name ‘Solace’, Lucy also produces a recreational nicotine gum ‘with a soft, chewable texture and a crispy outer coating’ (available in cinnamon, cool mint and fruit medley flavours).¹⁵ Alongside these products, nicotine pouches are also available under the Rogue, Velo and Lucy brands. NICables gummies are available in strawberry, lemon, banana and watermelon flavours. Nicotine content also varies by product, with Lucy gum sold in 2, 4 and 6 mg strengths,¹³ while Rogue brand lozenges, tablets and gum are sold in 2 and 4 mg strengths.⁷

According to ‘store finders’ on manufacturer websites, Lucy, Rogue and Velo products are already widely available in US retail locations.^{16–18} For instance, as of July 2022, the purchase price of a 12-pack Velo nicotine lozenges is \$5.79; a 10-pack Solace nicotine gum is \$4.69; and a 10-pack NICables nicotine gummies is \$6.99 in convenience stores in the Midwest. Products can also be ordered from manufacturer and vendor websites, and Lucy, Rogue and Velo offer subscription services via their websites, where a fixed amount of product is mailed to consumers every month in exchange for a recurring payment. These subscriptions come with reduced prices: in 2022, Rogue offered a 10% discount, and Lucy and Velo offered a 15% discount on subscription orders versus one-time purchases on their websites.^{7,13,19}

Manufacturer marketing emphasises the discreet nature of these products. For example, Lucy describes their nicotine lozenges as ‘discreet and mess-free’, such that one can ‘bring them with you wherever’¹⁵ while emphasising that ‘you can use Lucy [gum] anywhere you can chew gum’.¹³ Rogue lozenges can be used ‘anytime you want [...] even when you need to be extra low key’,²⁰ while Rogue tablets allow users to ‘break free of social boundaries by enjoying Rogue Tablets anywhere you go’.²¹

NRT nicotine gum use among never-smokers has been extremely rare as NRT promotion does not target non-users of tobacco products; however, newer oral nicotine product manufacturers use marketing strategies that may potentially encourage uptake among novices.²² Indeed, the candy-like form, colourful packaging, sweet and fruity flavours, and potential for discreet use (see [figure 1](#)) may make these products especially appealing to young or underage users. Additionally, their similarity to NRT gum and lozenges may encourage use by users interested in tobacco cessation, even



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Figure 1 From left to right: Velo hard nicotine lozenges and Solace nicotine gum, with an American quarter for scale. The products were purchased by the authors from US convenience stores.

though, except for Lucy lozenges, they are not approved as cessation aids by the FDA and are all marketed as recreational products. In fact, based on prior research on recreational use of NRTs among smokers, promotion of oral nicotine products for recreational use may potentially discourage smoking cessation as oral nicotine products may be used by smokers for temporary abstinence rather than quitting.²³ Furthermore, packaging and promotion of some of the newer products can mislead users as to the health harms of nicotine products and imply benefits of nicotine use. For example, NICables packaging resembles that of regular gummies candy or nutritional supplements in the form of gummies. Newer oral products may expose consumers to fewer harmful substances than traditional tobacco²⁴; however, none of the newer recreational products are currently authorised by the FDA to make reduced-risk claims. Indeed, these products have nicotine concentrations similar to NRT gum and lozenges, which typically have 2–4 mg of nicotine. Furthermore, marketing messages of Lucy brand products in particular, which



Figure 2 Detailed view of NICables nicotine gummies, with American quarter for scale. Note the description of the product as a 'dietary supplement'. The product was purchased by the authors at a US tobacco specialty shop.

emphasise its FDA and premarket tobacco product application (PMTA) status, may create a false impression of the product's endorsement by regulatory bodies.²⁵

While relatively minor in the US market, the industry expects substantial growth in this area. For example, according to investor-facing documents, Swisher predicts that its modern oral category will grow by 40% to \$1.5 billion in sales in 2022² and in August 2021 announced plans to sell its Rogue-branded products in 100 000 stores by the start of 2022.²⁶ These products are currently under-regulated and are available in flavours that may appeal to new users and youth. In fact, a 2021 survey found that 'non-tobacco oral nicotine products', including nicotine pouches, lozenges, tablets and gummies, were the second most commonly used nicotine product among underage users in California after e-cigarettes, beating out even cigarettes in popularity.²⁷

FDA regulations of flavoured tobacco and nicotine product sales should be extended to oral nicotine products. For example, in 2020, the FDA began prioritising enforcement against flavoured e-cigarettes on the basis that fruity or sweet flavours may appeal to youth²⁸; this action should be extended to modern oral products as well to limit their youth appeal. In August 2022, the FDA issued its first warning letter to Krave Nic, which sold a nicotine gummy similar to NICables²⁹; continued surveillance of this product category is needed to further inform such regulatory efforts.

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