Tobacco promotion restriction policies on social media

Grace Kong 1,2, Linnea Laestadius 1,2, Julia Vassey 3,4, Anuja Majmundar 5,6, Andrea M Stroup,7 Helen I Meissner,8 Ziyad Ben Taleb 7,9, Tess Boley Cruz 3,4, Sherry L Emery 8, Dan Romer9

ABSTRACT
Tobacco promotion is prolific on social media, with each platform setting their own restrictions on tobacco promotion and sales. We evaluated the policies related to tobacco product promotion and sales on 11 sites that are popular with youth in May 2021: Discord, Facebook, Instagram, Pinterest, Reddit, Snapchat, TikTok, Tumblr, Twitch, Twitter and YouTube. Nine of the 11 sites prohibited paid advertising for tobacco products. However, only three of them clearly prohibited sponsored content (ie, social influencers) that promotes tobacco. Six platforms restricted content that sells tobacco products and three tried to prohibit underage access to content that promotes or sells tobacco products. Although most platform policies prohibited paid tobacco advertising, few addressed more novel strategies, such as sponsored/influencer content and few had age-gating to prevent youth access. There is a pressing need to regulate tobacco promotion on social media platforms.

INTRODUCTION
Tobacco marketing drives demand for tobacco products, among both youth and adults.1 The effects of tobacco marketing are so robust that governments around the world imposed strict limits on tobacco marketing. In the USA, the Master Settlement Agreement (MSA) in 1998 restricted the promotion of cigarettes and smokeless tobacco on billboards, magazines, television, movies and sponsored events.2 However, a variety of tobacco products (eg, cigars, hookah, e-cigarettes and pipe tobacco) and novel marketing strategies (eg, social media marketing) are not governed by the MSA.2,3

By 2004, 168 countries had signed onto the 2003 WHO Framework Convention on Tobacco Control (FCTC), which banned ‘tobacco advertising, promotion, and sponsorship to the fullest extent possible given national constitutional principles’.4 In the USA, the 2009 Tobacco Control Act (TCA) allowed the U.S. Food and Drug Administration (FDA) to regulate manufacturing, distribution and marketing of tobacco products.5 In the face of conventional tobacco advertising, promotion and sponsorship bans, tobacco companies have used other less-regulated channels to promote their products. In particular, the rapidly changing digital media environment, such as social media, has been exploited by the tobacco industry to promote their products.6

WHAT IS ALREADY KNOWN ON THIS TOPIC
⇒ Current regulations are insufficient to restrict tobacco product promotion on social media.
⇒ Some social media platforms have begun to voluntarily restrict tobacco promotion.
⇒ Less known is whether social media’s self-imposed regulations are sufficient in restricting tobacco promotion.

WHAT THIS STUDY ADDS
⇒ Most platforms prohibited paid ads, but few addressed novel forms of tobacco promotion and prohibited youth access.
⇒ Some social media platforms did not have any restrictions on tobacco promotion.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY
⇒ A comprehensive restriction policy and enforcement are needed to prohibit tobacco promotion on social media.

Tobacco marketing on social media appeals to youth
Social media have become a significant conduit for tobacco marketing and have created a tobacco-permissive milieu that is attractive to youth.7 8 We use the term ‘social media’ to encompass a diverse selection of multimedia (text-based, image-based and video-based) platforms, which includes more traditional ‘social network’ communities like Facebook, Tumblr and Twitter and other platforms that are more often used as ‘media sharing networks’, such as Instagram, YouTube, Snapchat and TikTok. The social media ecosystem continues to develop, and more specialised social media platforms, such as Discord and Twitch, are being introduced with a focus on microcommunities such as gamers. Discord is a messaging platform that was originally directed at video gamers; however, its reach has broadened to other communities.9 Twitch is a video streaming platform that focuses on video game live streaming but also includes other content such as e-sports and music.10 These newer platforms can appeal to youth, particularly among video gamers, mainly because of their highly interactive and community-geared nature.11 Taken together, these social media platforms enable engagement with tobacco content through common features such as commenting, ‘liking’, messaging and adding other users as ‘friends’ in their own network.

1Department of Psychiatry, Yale School of Medicine, New Haven, Connecticut, USA
2Zilber School of Public Health, University of Wisconsin—Milwaukee, Milwaukee, Wisconsin, USA
3Department of Population and Public Health Sciences, University of Southern California, Los Angeles, California, USA
4Tobacco Control Research, American Cancer Society, Inc, Atlanta, Georgia, USA
5Westat, Rockville, Maryland, USA
6Office of Disease Prevention, National Institutes of Health, Bethesda, Maryland, USA
7Department of Kinesiology, College of Nursing and Health Innovation, University of Texas at Arlington, Arlington, Texas, USA
8Social Data Collaboratory, NORC at the University of Chicago, Chicago, Illinois, USA
9Annenberg Public Policy Center, University of Pennsylvania, Philadelphia, Pennsylvania, USA
Social media is highly appealing to youth around the globe. Emerging research shows that youth are increasingly engaging with online tobacco marketing; for instance, among U.S. youth, engagement with online tobacco marketing increased from 8.7% to 20.9% (2013/2014 to 2014/2015). This finding is concerning because exposure to online marketing, including on social media, is associated with subsequent tobacco use initiation among youth and young adults who never used tobacco, as well as with increased frequency of use, progression to poly-tobacco use and decreased cessation among youth who use tobacco products. Furthermore, a scoping review showed that tobacco promotional content is common on social media accounts across different countries such as USA, New Zealand, Australia and Canada. This collective evidence suggests that current restriction policies on tobacco promotion may be insufficient and a closer look at the current regulatory landscape is warranted.

Evolving tobacco product marketing strategies on social media

Tobacco promotion on social media can be grouped into three types: paid media (eg, promotion through paid online advertisements), earned media (ie, promotion through a third party such as press mentions, consumer-generated content rather than through a company) and owned media (ie, promotion through a tobacco brand’s direct channel such as their own website or social media account). Promotion of tobacco products on social media platforms may use a combination of these types of marketing to permit a high level of engagement with users.

Examples of commonly found tobacco promotion on social media can be summarised as the following: (1) Pages, posts or accounts created by the tobacco brands or tobacco retailers and features tobacco products and other news/events (owned media). (2) Social influencers, who are individuals who have a large network of followers in niche areas who promote a tobacco product by incorporating the product in their own social media content (paid/earned media). (3) Paid advertisements by tobacco companies that pop up in a viewer’s social media feed or run as banners (paid media). (4) Third party promotion of the tobacco on their social media (eg, bars featuring hookah in their promotional posts, planned product promotion on music videos that are shared on social media) (earned media). (5) Supporters of tobacco products reacting to (ie, using emojis or giving ‘likes’) on threads devoted to protobacco content or reposting links to protobacco product content such as websites/articles on their own social media pages. These promotional strategies may include direct (eg, ads featuring products/sales) and indirect methods (eg, tobacco industry advertising or promoting political agendas, corporate messaging or social issues such as #BlackLivesMatter and International Women’s Day).

Using the USA as an example, some of these promotions (eg, brands/retailers promoting tobacco products on social media) may fall under the FDA’s marketing restriction policies as earned or owned media, which function similarly to paid advertisements. These forms of promotions are still commercial communication that aims to promote the use of tobacco products. Thus, we sought to identify social media platforms’ self-imposed policies to determine whether they have restrictions on tobacco promotion and sales.

METHODS

We examined tobacco-related policies on social media platforms with current or emerging popularity among U.S. youth: Discord, Facebook, Instagram, Pinterest, Reddit, Snapchat, TikTok, Tumblr, Twitter, YouTube and Twitch. In May 2021, each platform was visited and terms of service and advertising policies were downloaded and reviewed for language related to tobacco products. A detailed description of social media’s policies on the restriction of tobacco promotion is reported in online supplemental table 1. These policies were reviewed by two research members to inductively identify the types of restrictions present, as well as any language about instances where tobacco products are explicitly allowed to be promoted on the platform. Once restriction types were identified, each social media platform was systematically reviewed for each restriction type by two research members.

Across social media platforms, we categorised the restrictions into four categories: (1) paid advertisement, (2) promotion of tobacco products, (3) sale of tobacco products and (4) underage access (table 1). Restrictions on paid advertisement included prohibiting paid advertisements for tobacco products, tobacco use venues (eg, hookah lounges) and tobacco events. Restrictions on promotion included the platform’s algorithm not ‘pushing’ or not recommending tobacco promotional content to its users and the prohibition of the creation of influencer posts with tobacco content. Restrictions on sales included prohibiting tobacco sales on the brand/vendor’s social media account or platform ‘marketplaces’. Restriction on underage access included promotional content to be shown only on age-verified accounts. Please see online supplemental table 1 for the policies of each platform that pertain to specific tobacco products when provided.

RESULTS

Paid tobacco ads

Nine social media platforms explicitly prohibited paid advertising for tobacco products. However, definitions of tobacco products varied across platforms; for example, ‘Tumblr allowed paid advertising of e-cigarettes when ‘legal in the target market’. YouTube prohibited paid tobacco ads and limited the capacity of videos promoting tobacco from being monetised by labeling them ‘limited or no ads’. Video creators can earn money by sharing the revenues of the ads placed on their videos and videos have less chance of being chosen for advertising if they are labelled as ‘limited or no ads’. Newer platforms such as Twitch and Discord did not have any tobacco promotion policies.

Six social media platforms prohibited paid advertising for tobacco use in venues such as hookah lounges, and two social media platforms prohibited paid ads for tobacco events. Some prohibitions on tobacco product advertising also included promoting tobacco product use, which may be interpreted to include events and venues focused on tobacco use.
Table 1  Social media platform policies restricting the promotion and sale of tobacco products as of May 2021

<table>
<thead>
<tr>
<th>Restriction type</th>
<th>Tobacco restriction policies</th>
<th>Social media platforms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Discord*</td>
</tr>
<tr>
<td>Paid ads</td>
<td>Prohibits paid ads for tobacco products</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Prohibits paid ads for tobacco use venues§ (eg, hookah lounges)</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Prohibits paid ads for tobacco events§</td>
<td>–</td>
</tr>
<tr>
<td>Promotion¶</td>
<td>Restricts platform from recommending user generated tobacco content</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Prohibits sponsored content (ie, influencer)</td>
<td>–</td>
</tr>
<tr>
<td>Sales</td>
<td>Prohibits tobacco sales**</td>
<td>–</td>
</tr>
<tr>
<td>Underage access</td>
<td>Age-gating that restricts youth access to tobacco sales and promotions</td>
<td>–</td>
</tr>
</tbody>
</table>

*Discord is currently not supported by paid advertisements and does not allow paid advertisements of any kind.
††In addition to the policies in the table, YouTube also limits the monetisation of videos that promote tobacco products through labelling these videos as ‘limited or no ads’. Video creators are able to earn money by sharing the revenues of the ads by placing the ads on their video as part of the YouTube Partner Program. In this programme, advertisers can choose which videos to post their ads, and the videos will have less chance of being chosen if they are labelled as ‘limited or no ads’.
‡‡Tumblr permits paid e-cigarette advertising when legal in the target market.
§Some prohibitions on tobacco product advertising also include promoting tobacco product use, which may be interpreted to include events and venues that promote tobacco use.
¶Facebook and Instagram permit content that attempts to buy, sell, trade or gift tobacco products when posted by a brick-and-mortar store or legitimate website or brand when age-gated to 18 years or older.**Some platforms have generic policies against the sale of regulated products but that do not explicitly mention tobacco. These provisions are not included here due to their ambiguity.
††Pinterest and Reddit restrict user-to-user sales of tobacco products, but do not explicitly address sales from licensed retailers.
‡‡YouTube’s language is broader than Facebook and Instagram and indicates that content that promotes a product that contains nicotine may be age-gated or removed.

Promotion

Content that promotes tobacco products was less frequently restricted. For example, Instagram and Snapchat have policies against recommending posts that promote tobacco to other users. Policies related to sponsored tobacco content were similarly limited, with only three of the platforms, Facebook, Instagram and TikTok, having language that clearly prohibits sponsored, endorsed or partnership-based content that promotes tobacco products.

Sales

Six platforms prohibited or limited content that attempts to sell tobacco products, with varying policies. For example, Facebook and Instagram prohibited tobacco sales using official platform commerce tools, but explicitly allowed age-gated posts that sell tobacco products when posted by an account representing a brick-and-mortar store or ‘legitimate website or brand’; Pinterest and Reddit restricted user-to-user sales of tobacco products but did not explicitly state rules about sales from licensed retailers and YouTube prohibited posting any content that directly sells, links to, or facilitates access to tobacco products.

Underage access

Three platforms had specific language about age-gating on tobacco promotional content. Age-gating refers to restricting access to social media content unless an individual is signed into an age-verified account. As stated above, Facebook and Instagram restricted posts from stores that sell tobacco products to underage minors on their platforms. YouTube’s language is broader than Facebook and Instagram and indicates that content that promotes a product that contains nicotine may be age-gated or removed.

DISCUSSION

As of May 2021, the majority of the self-imposed social media platform policies prohibited paid tobacco advertising but failed to address more novel strategies, such as sponsored/influencer content or promotional content on brand and retailer accounts. Interestingly, the newest social media platforms, Discord and Twitch, were the most lenient in terms of restricting their tobacco promotional content. Paid advertisements represent only part of the concern with tobacco promotion on social media. Unpaid promotional content posted by retailers and brands on their own accounts, sponsored posts made by influencers and indirect promotion of tobacco products by incorporating political messaging and social issues, are increasingly concerning.19 26 27 34

Only three platforms explicitly restricted influencer posts with tobacco content, and two platforms did not permit user-generated tobacco promotions to be featured or recommended content on the platform. Minimising the extent to which a platform’s algorithm will push tobacco content to other users may reduce youth exposure. It is notable that most social media platforms would allow content that promotes tobacco use posted by users other than registered influencers. For example, an analysis of user-generated content on YouTube found extensive presence of misinformation about the harms of tobacco use and the portrayal of tobacco use as an exciting activity (eg, blowing smoke rings) without any indication of the ill effects of the behaviour.35 Such portrayals frequently involved youth using e-cigarettes.36

The prohibition of tobacco product sales varied, with some prohibiting sales on their official commerce platforms and others prohibiting user-to-user transactions, which could include gifts involving tobacco. Although these general sales prohibitions may restrict youth from purchasing, policies were not consistent across platforms and there were some cases where selling was allowed. For instance, Facebook and Instagram did not allow selling tobacco products in their “marketplace” but allowed brands and retail stores to sell tobacco products on their age-gated posts. Facebook, Instagram and YouTube were the only platforms that explicitly had an age-gating policy that reflected FDA’s policy to prohibit the sale of tobacco products to minors, and no platforms mentioned mandated warning statements.

Violation of self-imposed tobacco marketing restrictions is common

It should be stressed that having a policy in place is not a guarantee that the policy will be enforced. Violation of platform
policies is common as can be seen in examples shown in figures 1 and 2. Figure 1 shows an example of a violation of social media platform policy that prohibits influencer posts with tobacco content. It shows a known influencer giving away an e-cigarette product through soliciting social media engagement (ie, liking, commenting). Figure 2 shows a violation of another social media platform policy that requires content that promotes a product that contains nicotine to be age-gated or removed and prohibits the selling of the product. The content shown in this figure was accessed through a non-age verified account and this post had an external link where the nicotine product can be purchased.

Age-gating is one way to restrict youth access; however, prior research suggests that age-gating policies are not effectively enforced for tobacco-related pages on social media platforms and sponsored posts do not always disclose financial relationships or make use of official branded post tools that would identify them on a given platform.4 20 22 It is also unclear if platforms enforce policies consistently under different jurisdictions internationally. Additionally, age-gating is only a minor step towards preventing youth access since circumventing age restrictions is easy; underage youth can simply lie about their age to create and access age-restricted content on social media.37 38 Although platforms are now exploring novel ways of ensuring more accurate age verification, it is not yet clear how effective these strategies will be.39

Need for comprehensive tobacco marketing restrictions on social media

Prioritising tobacco marketing restrictions and enforcement of these restrictions on social media is crucial because unlike the traditional one-way media (eg, television, radio, newspaper), social media offers the tobacco industry a powerful interactive tool to appeal to younger generations of customers, including never users, and to renormalise tobacco use by associating it with youth culture.7 Indeed, the heavy presence of tobacco marketing on various social media platforms has been well-documented.3 These tobacco promotional activities represent a significant public health concern because of the popularity of social media use among youth.12 29 Further, exposure to tobacco marketing on social media is associated with subsequent use of tobacco products among youth15 40 and young adults.16

Despite the variety of tobacco promotion that is occurring on social media, FDA’s current restrictions on tobacco marketing (ie, requiring health warnings, prohibiting the sale and distribution of products with unsubstantiated modified risk tobacco product health claims or false or misleading claims on labelling or advertising and prohibiting the distribution of free samples) do not apply to all forms of tobacco promotion. Nevertheless, the FDA’s recent directives seem to extend to influencer marketing. In 2019, the FDA and the U.S. Federal Trade Commission jointly issued warning letters to four companies who were using social media influencers to market e-liquids for failure to include nicotine warning labels in their efforts to prevent youth tobacco use, particularly e-cigarette use.41 42 In 2018, the WHO established a working group to develop specific guidelines to address the depiction of tobacco in the entertainment media […] taking account of technological advances […] such as the Internet and mobile communications.43 This group concluded that the original provisions of the 2003 FCTC adequately cover social media promotion of tobacco products and acknowledged the need to address cross-border tobacco promotions on digital media.

Potential solutions to restrict tobacco promotion on social media

It is important that regulations are up to date and flexible to keep pace with the current tobacco marketing that is occurring on social media. Currently, the TCA gives the FDA general authority to regulate tobacco marketing, including on social media; however, it does not explicitly mention social media, which indicates that further actions can be taken. To this end, the FDA can specifically restrict tobacco advertising in youth-attracting media and events, which include social media. The FDA can also require tobacco companies to maintain a continuously updated public database of all their social media content posted from their official social media accounts (eg, shared paid reviews, cross-promotions). Such requests may also include content originating from affiliates such as sponsored partners’ social media accounts (eg, targeted audience characteristics per sponsored post, dollar amount spent for a sponsored review) and their associated meta-data (eg, list of followers). Public disclosure of social media marketing may allow community members, including researchers, to monitor tobacco promotion on social media.
media to inform federal and social media platform policies. This effort may facilitate timely monitoring of tobacco companies’ social media marketing practices.

Future regulations must consider cross-border advertising of tobacco products. Social media makes it easy for promotional content to be created, shared and viewed in other countries with different jurisdictions and provides an optimal platform for the tobacco industry to circumvent tobacco promotional restriction policies. For example, U.S.-based influencers who promote tobacco content do not exist in isolation; they actively communicate with a network of international influencers via commenting and liking each other’s posts and cross-promoting each other’s content.44 This can create an international net of tobacco promoters who expose their followers to tobacco promotional content outside of their country’s border. Cross-border tobacco promotion has been less studied by tobacco control researchers because non-native language and locations from other countries often get omitted from surveillance of social media (typically non-English and non-U.S.), which further creates a permissible milieu for cross-border advertising to proliferate. An international effort is needed to prevent the tobacco industry from exploiting this loophole.

Social media platforms have incorporated a wide range of strategies to protect vulnerable populations from harmful content. For example, Twitter prompts users to read an article before retweeting it to their network;45 Facebook requires ads pertaining to social issues, elections or politics to be accompanied by disclaimers46 and Instagram has begun applying informational labels to posts about COVID-19.47 At the very least, social media platforms can apply informational/warning labels on all tobacco content on their platforms. In addition, platforms should clearly define policies that prohibit promoting and selling tobacco products using both direct and indirect methods (eg, influencers marketing the product) and explicitly state policies that prohibit youth from accessing tobacco promotional content. Importantly, how these policies will be enforced must be explained. Finally, social media platforms can remove content that is misleading and potentially harmful to public health, as it has done regarding the COVID-19 pandemic. As policies change over time, it will be important for researchers and regulators to revisit the landscape of social media platform tobacco policies.

The recent U.S. Surgeon General Advisory highlighted steps that social media platforms can take to protect public health from misinformation during the COVID-19 pandemic.25 Like the COVID-19 pandemic, tobacco use is a recognised threat to public health that would justify similar treatment on social media. For instance, similar guidelines can be also applied to restrict tobacco promotion on these platforms including, (1) assess the harms of tobacco promotion on their platforms and take responsibility for the harms that this promotion can cause; (2) offer open access to real-time data to researchers to determine the spread and effects of tobacco promotion; (3) strengthen monitoring of tobacco promotion; (4) prioritise early detection of tobacco promotion; (5) determine what internal policies and algorithms may contribute to tobacco promotion and (6) amplify information from accurate sources about the harms of tobacco products.

In addition to platform-specific policies and efforts, it will be critical to strengthen the regulatory framework around issues pertaining to algorithm-driven exposure to content related to tobacco to limit exposure across all platforms. Research suggests that the platform algorithms are designed to expose audiences to homogenous content over time.48 It is possible that those who encounter tobacco-related information initially may be exposed to such content even more in the future.22 The proposed Algorithmic Justice and Online Platform Transparency Act of 202149 in the USA would require social media platforms to disclose how they use algorithms and what information they use to run them. By making all social media platforms accountable, this proposed legislation would help protect vulnerable populations, such as youth from being targeted with harmful content, such as tobacco promotional content.

Summary

As of May 2021, existing social media platform policies related to restricting promotion and sales of tobacco products are insufficient to restrict the overall proliferation of this content on social media. We examined tobacco promotion policies on social media platforms from the USA; however, it is important to acknowledge that social media reach is broad. Across the globe, 3.6 billion people are using social media and use rate is projected to grow.46 It is time to keep the tobacco industry accountable so that they stop promoting their products to youth on digital platforms such as social media, and for social media platform leadership and the regulatory authorities to set and enforce strong policies that restrict tobacco promotional content on social media.

Twitter Grace Kong @gracekongphd, Linnea Laestadius @LinneaLaestad, Julia Vassey @JVassey, Anuja Majmundar @AnujaMajm undar and Sherry L Emery @sherryemery

Contributors Study conception and design: GK, LL, JV, AM, AMS, HIM, ZBT, TBC, SLE, DR. Data collection: LL, JV, ZBT. Analysis and interpretation of results: GK, LL, JV, AM, AMS, HIM, ZBT, SLE, DR. Draft manuscript preparation/edit: GK, LL, JV, AM, AMS, HIM, ZBT, SLE, DR. All authors reviewed the results and approved the final version of the manuscript.

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ORCID iDs Grace Kong http://orcid.org/0000-0002-9269-3435
Linnea Laestadius http://orcid.org/0000-0003-3272-9317
Julia Vassey http://orcid.org/0000-0003-3002-2000
Anuja Majmundar http://orcid.org/0000-0002-7785-3357
Ziyad Ben Taleb http://orcid.org/0000-0001-6894-5535
Tess Boley Cruz http://orcid.org/0000-0002-5894-1802
Sherry L Emery http://orcid.org/0000-0001-9278-9990
REFERENCES


21 Laestadius L, Wang Y. Youth access to JUUL online: eBay sales of JUUL prior to and following FDA action. Tob Control 2019;28:617–622.


34 Romet D, Reeze Z, Jamieson PE. Misleading tobacco content is on the rise on YouTube. Harv Kennedy Sch Misinformation Rev 2020.


**Supplementary Table 1. Detailed Social Media Platform Policies Restricting the Promotion and Sale of Tobacco Products as of May 2021**

<table>
<thead>
<tr>
<th>Policy Category</th>
<th>Discord</th>
<th>Facebook</th>
<th>Instagram</th>
<th>Pinterest</th>
<th>Reddit</th>
<th>Snapchat</th>
<th>Tiktok</th>
<th>Tumblr</th>
<th>Twitch</th>
<th>Twitter</th>
<th>YouTube</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Restricts paid ads for tobacco products</strong></td>
<td>NA</td>
<td>Prohibits paid advertising promoting the sale or use of tobacco products and paraphernalia, including cigarettes, cigars, hookah, chewing tobacco, pipes, e-cigarettes, vaporizers, or any other products that simulate smoking.</td>
<td>Prohibits paid advertising promoting the sale or use of tobacco products and paraphernalia, including cigarettes, cigars, hookah, chewing tobacco, pipes, e-cigarettes, vaporizers, or any other products that simulate smoking.</td>
<td>Prohibits paid advertising of tobacco products not limited to cigarettes, e-cigarettes, vapes or vape cartridges, chewing tobacco, paraphernalia, and any brands associated with the above products. Product Pins, which are paid, shoppable pins, may not include tobacco products.</td>
<td>Prohibits paid ads promoting the use, sale, manufacturing, and branding of tobacco, tobacco alternatives, and other tobacco-related products and services, including cigarettes, cigars, snus, chewing tobacco, e-cigarettes, vaporizers, hookah, and smoking cessation programs and products.</td>
<td>Prohibits all paid promotion of cigarettes (including e-cigarettes), cigars, vaping products, tobacco, nicotine, or related products of any kind, including those not made through Snapchat ads.</td>
<td>Prohibits displaying or promoting the following products on paid advertisement s and on landing pages (i.e., a page that collects and stores information about visitors): tobacco and tobacco-relate d products such as cigars, tobacco pipes, e-cigarettes, or smoking-relate d behavior in real life, including but not limited to alternatives which imitate the act of smoking.</td>
<td>Prohibits paid advertising that promotes cigarettes, cigars, smokeless tobacco, other tobacco products, paraphernalia, tobacco companies and smoking.</td>
<td>Prohibits paid advertising for all tobacco products, accessories, and brands globally. This includes tobacco of any kind, cigarettes, cigars, products that imitate the act of smoking, pipes, and chewing tobacco. Prohibits knowingly marketing or advertising for tobacco products or accessories, including e-cigarettes to minors using paid ads.</td>
<td>Google ads (which apply to YouTube) prohibits paid ads for tobacco products (cigarettes, cigars, snus, chewing tobacco, rolling and pipe tobacco), products that facilitate or promote tobacco consumption, and products designed to simulate smoking (herbal cigarettes, e-cigarettes). Paid content that includes excessive or persistent consumption of tobacco must be rated as having Mild Mature content.</td>
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<tr>
<td><strong>Restricts paid ads for tobacco events</strong></td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Prohibits paid advertising for events and research sponsored by tobacco manufacturers.</td>
<td>Prohibits paid advertising for events sponsored by tobacco manufacturers.</td>
</tr>
<tr>
<td>Restrictions paid ads for tobacco use venues (e.g., hookah lounges)*</td>
<td>NA</td>
<td>Prohibits paid advertising for hookah lounges and hookah lounge promotion on Facebook commerce surfaces (e.g., Facebook Marketplace)</td>
<td>Prohibits paid advertising of hookah bars.</td>
<td>NA</td>
<td>NA</td>
<td>Prohibits paid advertising for tobacco use venues such as cigar bars and hookah lounges.</td>
<td>NA</td>
<td>NA</td>
<td>Prohibits paid advertising for cigar bars and hookah lounges.</td>
<td>Google ads (which apply to YouTube) prohibits paid ads for services that directly facilitate or promote tobacco consumption, including hookah lounges and cigar bars.</td>
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<tr>
<td>Buying or selling tobacco products and related paraphernalia is prohibited via Facebook commerce surfaces (e.g., Facebook Marketplace). This includes cigarettes, cigars, chewing tobacco, pipes, hookahs, e-cigarettes and tobacco devices. Content that attempts to buy, sell, trade, or gift tobacco products cannot be posted by a Facebook page or group unless they represent a</td>
<td>NA</td>
<td>Buying or selling tobacco products and related paraphernalia is prohibited via Facebook commerce surfaces (e.g., Facebook Marketplace). This includes cigarettes, cigars, chewing tobacco, pipes, hookahs, e-cigarettes and tobacco devices. Content that attempts to buy, sell, trade, or gift tobacco products cannot be posted by a Facebook page or group unless they represent a</td>
<td>Limits the distribution of, or removes, content and accounts from individuals and unlicensed retailers offering to sell, purchase or trade tobacco.</td>
<td>Prohibits soliciting or facilitating any direct user-to-user transactions or gifts involving tobacco.</td>
<td>NA</td>
<td>Prohibits posting, streaming, or sharing content that offers the sale, purchase and trade of tobacco products, including vaping products. Also prohibits paid ads that facilitate access to tobacco products.</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Prohibits posting content that directly sells, links to, or facilitates access to nicotine, including vaping products.</td>
<td></td>
</tr>
</tbody>
</table>

Supplemental material placed on this supplemental material which has been supplied by the author(s) Tob Control

<p>| Restricts featuring user generated content with tobacco as platform recommended content | brick and mortar store or legitimate website or brand. | Content that promotes tobacco or vaping products may not be eligible to be recommended posts. | NA | Prohibits Snapchat Spotlight submission that include tobacco. | NA | NA | NA | NA | NA |
| Restricts influencer posts with tobacco | NA | Branded content (i.e., sponsored posts), which must use the branded content tool, may not promote tobacco products, vaporizers, e-cigarettes, or products that simulate smoking. | Branded content (i.e., sponsored posts), which must use the branded content tool, may not promote tobacco products, vaporizers, e-cigarettes, or products that simulate smoking. | NA | Prohibits branded content (e.g., endorsements, partnerships) with tobacco content, including cigarettes, cigars, tobacco, e-cigarettes, shisha and other related products and services. | NA | NA | NA | NA | NA |
| Explicitly allowed content | NA | Content that attempts to buy, sell, trade, or gift tobacco products can be posted by a Facebook Page or Group representing a brick and mortar store or legitimate website or brand. The direct sale and purchase of tobacco. | Content that attempts to buy, sell, trade, or gift tobacco products can be posted by an Instagram profile representing a brick and mortar store or legitimate website or brand. The direct sale and purchase of tobacco. | NA | Allows external links to appropriately licensed vendors of tobacco. | NA | NA | NA | NA | &quot;Explore More&quot; (supervised accounts for children targeted at 13+) may include videos that display or show frequent use of alcohol or tobacco. In determining age restricted content, YouTube considers whether the... |</p>
<table>
<thead>
<tr>
<th>Age gating/age restrictions on unpaid tobacco content</th>
<th>Content that attempts to buy, sell, trade, or gift tobacco products made by a brick and mortar store or legitimate website or brand must be restricted</th>
<th>Content that attempts to buy, sell, trade, or gift tobacco products made by a brick and mortar store or legitimate website or brand must be restricted</th>
<th>e-cigarettes is allowed provided the advertising is legal in the target market.</th>
<th>upload is educational, documentary, scientific or artistic in nature and whether there's any commentary discouraging the act.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Other</th>
<th>NA</th>
<th>to be visible only to adults 18 or older.</th>
<th>to be visible only to adults 18 or older.</th>
<th>NA</th>
<th>NA</th>
<th>NA</th>
<th>NA</th>
<th>NA</th>
<th>available to minors or when logged out.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Monetized posts may not solicit compensation for engaging tobacco use.</td>
<td>Monetized posts may not solicit compensation for engaging tobacco use.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Content may not show minors using nicotine.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Currently exploring a trial of moderator community content tags for mature content (including one for tobacco content) for a limited number of communities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Videos with tobacco (cigarettes, cigars, chewing tobacco), tobacco related products (pipes, vape pens), and products designed to simulate smoking (herbal cigarettes, e-cigarettes, and vaping) are not suitable for ads and will result in a &quot;limited or no ads&quot; monetization state.</td>
</tr>
</tbody>
</table>

Note. NA = Not available

*Some prohibitions on tobacco product advertising also include tobacco product use, which may be interpreted to include events and venues where tobacco is used.

**Note that some platforms have generic policies against the sale of regulated products but that do not explicitly mention tobacco. These provisions are not included here due to their ambiguity.