

# The marketing of sugar-sweetened beverages to young people on Facebook

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Sugar-sweetened beverages (SSBs) are increasingly gaining attention for their role in modifiable weight gain and obesity.<sup>1,2</sup> The rate of global obesity has more than doubled in the past 40 years with more than 1.9 billion adults overweight in 2014, 600 million of whom were obese.<sup>3</sup> In Australia alone, more than half (63.4%) of adults and more than one-quarter (27.4%) of children were overweight and obese in 2014–15.<sup>4</sup> Regular consumption of SSBs also increases the risk of non-communicable diseases such as type 2 diabetes<sup>5,6</sup> and cardiovascular disease risk factors.<sup>7</sup>

Young people aged 12 to 19 are the largest consumers of SSBs<sup>8–10</sup> and the marketing of SSBs to this age group is ubiquitous. In Australia, those aged 14 to 18 are the highest consumers of soft drinks and sports drinks while consumption of energy drinks peaks for those aged 19 to 30; consumption is highest among males.<sup>11</sup> SSBs are heavily advertised to young people through television<sup>12–14</sup> as well as through several other environments and media including schools, sport sponsorships, retail environments, video games and the internet.<sup>15–20</sup> The proportion of expenditure for SSB advertising through traditional media such as television is decreasing, while expenditure for advertising through online channels such as social media platforms is increasing.<sup>21</sup> Although we know that marketing drives consumption in young people,<sup>22</sup> research and policy actions often fail to address the marketing of SSBs to this group, with attention more often focused on children.<sup>23</sup>

## Social media and contemporary marketing

Social media platforms have been described by Montgomery as contributing to “an

## Abstract

**Objective:** We explored how sugar-sweetened beverages are marketed to Australian young people through sugar-sweetened beverage brand Facebook pages.

**Methods:** We undertook a content analysis of Facebook posts made by six of the most popular sugar-sweetened beverage Facebook pages in Australia. Data were collected for a six-month period and were quantitatively analysed for descriptive data and explicit marketing techniques and then thematically analysed for implicit marketing messages.

**Results:** There were almost 1.9 million engagements across the six pages over the six-month period. Most posts (70%) included one or more calls to action through which followers were encouraged to do something. Content by sports and energy drink brands were heavily dominated by ‘sporting prowess’ and ‘masculinity’ themes while content by Coca-Cola shared the message of ‘having fun with friends’ and ‘happiness’. All pages used outdoor setting scenes.

**Conclusions:** Sugar-sweetened beverage brands use Facebook to align their marketing with the socio-cultural values and practices likely to be regarded as important by young people.

**Implications for public health:** Our findings provide challenges and opportunities for those in public health advocacy and policy to consider for future obesity-reduction strategies.

**Key words:** sugar-sweetened beverages, marketing, advertising, social media, online

evolving integrated, ubiquitous media environment, where content, culture, and commerce are highly interconnected”.<sup>24</sup> To the user, social media platforms provide a source to share information, socialise and engage in entertainment. However, the profitability of social media platforms is dependent on advertising revenue and this is achieved through extensive data collection and tracking of users’ online activities, preferences and peer relations.<sup>24</sup> Many industries now recognise the potential of marketing through social media and are increasingly investing in marketing through these platforms.<sup>21,25</sup> The food and beverage industry is playing a leading role in conducting and implementing market research on social media.<sup>26</sup>

Facebook is the most used social media platform in Australia.<sup>27</sup> Like all social networking platforms, Facebook revolves

around the creation of profile pages, connection with peers and commenting features.<sup>28</sup> Facebook users are able to ‘like’, comment on, or share content with others in their online network. Like the everyday user, businesses are also able to create a profile page where users can follow a business’ activity on the platform. This means that brand advertising is no longer confined to advertising that sits outside of the core content on a platform but rather allows, and has normalised, branded content to appear on a user’s newsfeed alongside content shared by their peers.<sup>29</sup>

While social media is accessed by people of all ages, young people remain at the centre of the ‘social media economy’.<sup>24</sup> The online environment has become an important setting for young people, particularly social media platforms.<sup>30</sup> In 2015, the majority of

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young Australians aged between 14 to 24 were going online multiple times a day.<sup>31</sup> Multiple devices are now used to access the internet, with increased use of mobile devices leading to a substantial increase in the time spent online by this age group.<sup>31</sup> Facebook remains one of the most used social media platforms by young people, with 73% of Australians aged 14 to 17 using the platform.<sup>31</sup> Young people use social media in a personalised way and brands can personalise and directly target young people's wants, needs and behaviours.<sup>32,33</sup> It is therefore unsurprising that a considerable amount of market research has been focused on youth as a demographic group for the purpose of online advertising.<sup>24</sup>

Extensive research has explored the advertising of leading alcoholic beverage brands on social media and its effect on increased alcohol consumption.<sup>34</sup> However, relatively little public health research has addressed marketing of non-alcoholic sugar-sweetened beverages through social media<sup>25,35</sup> and no research has specifically focused on the marketing of SSB brands through Facebook.

The aim of this study was to understand how SSBs are marketed to young people in Australia through content posted by brands on six of the most popular SSB pages among Australian Facebook users. We analysed marketing techniques that are specific to, and/or enhanced by, social media and explored the messaging used by SSB brands and the extent to which this messaging is likely to resonate with young people in Australia. Young people are defined as those aged 13 to 25 for this study, aligning with high social media use and consumption rate of SSBs among this age group.

## Methods

We undertook a content analysis of posts made by popular SSB brand pages, based on the content analysis coding frameworks and methods by Carah<sup>29</sup> and Freeman et al.<sup>25</sup>

### Sample selection

Using the social media monitoring website Socialbakers,<sup>36</sup> the top 20 SSB pages were ranked in June 2015 according to the total number of Australian Facebook users who had liked the pages. Pages were excluded if they were specifically for artificially sweetened beverage brands or if they were global pages when an Australian-specific page also appeared in the top 20 ranking.

Australian-specific pages were selected as advertising content is often specific to location. We selected the top two pages from each category of soda (soft drink), sports drinks and energy drinks, giving a total of six pages for analysis, namely: Coca-Cola Australia ([www.facebook.com/CocaColaAustralia](http://www.facebook.com/CocaColaAustralia)), Pepsi (Australia; [www.facebook.com/PepsiAustralia](http://www.facebook.com/PepsiAustralia)), Powerade Australia ([www.facebook.com/Powerade.au](http://www.facebook.com/Powerade.au)), Gatorade Australia (<https://www.facebook.com/GatoradeAustralia>), Red Bull (global; [www.facebook.com/redbull](http://www.facebook.com/redbull)) and Monster Energy (global; [www.facebook.com/MonsterEnergy](http://www.facebook.com/MonsterEnergy)). We collected all official posts made by these brands to their page timeline during the six-month period from 1 January 2015 to 30 June 2015 (inclusive), yielding 446 posts. Data were captured on 17 August 2015 using NCapture for NVivo 10.<sup>37</sup>

### Data collection and analysis

We adapted a content analysis tool by Carah.<sup>29</sup> We piloted and then further refined and adjusted the coding framework for suitability (see Supplementary Table). Each post was coded by the lead author. Posts were coded for call to action and hashtags. We also collected other descriptive data for each post: post type (status, image, video, share, link, other); the product type that appeared in the post (SSB, 'reduced' sugar, no sugar, multiple, or not specified); and the total number of likes, shares and comments. The total number of likes for each page on the date of data collection was also recorded.

Thematic analysis of posts was undertaken in accordance with the guidelines suggested by Braun and Clarke<sup>38</sup> using a semantic framework of people, actions and settings. We then specifically analysed posts in terms of this framework to identify themes at the latent level to describe the broader conceptualisations that underpinned these observations.<sup>38</sup> Our analysis showed that these broader conceptualisations aligned closely with the literature on social meanings that resonate with young people, providing added evidence of the rigour of our analysis.<sup>39-54</sup>

## Results

Over the six-month period, there were almost 1.9 million engagements across all six pages by Facebook users through likes, comments and shares on posts (Table 1). Sports drinks had the highest observed rate of engagement, despite having the least followers, with Gatorade having 333.9 per

1,000 followers engaging with their posts over the six-month period and Powerade having an engagement rate of 286.4 per 1,000 followers. Coca-Cola had 222.6 engagements per 1,000 followers. These trends were consistent across all levels of engagement (likes, comments and shares; Table 1).

The most common form of post was visual. Across all brands, posts were predominantly of photos and videos (62% and 34% respectively; Table 1). Four per cent of posts consisted of just a web link to another page and only one post from the sample was a written status without the inclusion of any visuals. Sugar-sweetened beverages were the most frequently occurring product type within posts across pages, with fewer than 5% of posts containing 'reduced' and/or no sugar products. Posts made by Pepsi were the exception to this, with the brand's no-sugar product Pepsi Max most frequently appearing in posts (87%; Table 1).

### Marketing techniques

#### Call to action

Many posts (70%) included one or more calls to action through which the brands encouraged their followers to do something (Table 1). No brands directly asked their followers to like or share their posts and relatively few posts across brands directly asked followers to comment on posts (4%). Rather, posts across all brand pages posed a question to users (33%; range 28–71%), encouraged users to follow a web link (46%; range 14–71%), and/or promoted a competition for users to enter (21%; range 3–39%). Sports drinks and soda pages also directly encouraged users to create and share their own content (known as user-generated content) in a number of their posts (34% and 14%, respectively).

#### Tagging

Brands used a range of hashtags that create a link between their posts and all other content on Facebook containing the same hashtag. Hashtags were regularly used by sports drink and soda pages with 38% and 72% of posts containing one or more hashtags, respectively (Table 1). The most frequently used hashtags were in association with specific marketing campaigns (for example #colouryoursummer; Coca-Cola), competitions (for example #gchallenges; Gatorade) or sporting events (for example #cwc15 (Cricket World Cup); Pepsi and Gatorade). Monster Energy also used hashtags within 63% of posts and was the most frequent user of the Facebook

Table 1: Descriptive characteristics and marketing techniques on sugar-sweetened beverage brands' Facebook pages (n=446), January – June 2015.

	Coca-Cola (n=75)		Pepsi (n=147)		Gatorade (n=79)		Powerade (n=21)		Red Bull (n=14)		Monster Energy (n=110)	
	n	%	n	%	n	%	n	%	n	%	n	%
Page Followers <sup>a</sup>	953,189	-	33,542,474	-	113,003	-	154,846	-	43,659,681	-	23,713,034	-
Engagement, <sup>b</sup> Total	212,159	222.6	149,382	4.5	37,734	333.9	44,347	286.4	255,033	5.8	1,183,040	49.9
Likes	196,537	206.2	131,785	3.9	31,680	280.3	39,948	258.0	184,081	4.2	1,115,681	47.0
Comments	11,621	12.2	9,945	0.3	4,580	40.5	3,184	20.6	9,600	0.2	12,219	0.5
Shares	4,001	402	7,652	0.2	1,474	13.0	1,215	7.8	61,352	1.4	55,140	2.3
Post Type												
Photo	49	65.3	106	72.1	36	45.6	19	90.5	1	7.1	65	59.1
Video	26	34.7	34	23.1	32	40.5	2	9.5	13	92.9	45	40.9
Web Link Only	0	0.0	6	4.1	11	13.9	0	0.0	0	0.0	0	0.0
Text Only	0	0.0	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0
Beverage Type												
Sugar	64	85.3	26	17.7	51	64.6	18	85.7	12	85.7	84	76.4
Low Sugar	3	4.0	19	12.9	0	0.0	0	0.0	0	0.0	0	0.0
Sugar Free	0	0.0	87	59.2	0	0.0	0	0.0	0	0.0	1	0.9
Multiple	1	1.3	1	0.7	1	1.3	0	0.0	0	0.0	1	0.9
Non-Specific	7	9.3	14	9.5	27	34.2	3	14.3	2	14.3	24	21.8
Call to Action, Total	50	66.7	104	70.7	49	62.0	18	85.7	13	92.9	78	70.9
Like	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Comment	6	8.0	7	4.8	0	0.0	5	23.8	0	0.0	1	0.9
Share	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Web Link	18	24.0	73	49.7	40	50.6	3	14.3	10	71.4	59	53.6
Event	5	6.7	6	4.1	0	0.0	0	0.0	0	0.0	0	0.0
Competition	2	2.7	57	38.8	31	39.2	3	14.3	0	0.0	0	0.0
User Content	6	8.0	26	17.7	14	17.7	3	14.3	0	0.0	0	0.0
Question	31	41.3	41	27.9	23	29.1	15	71.4	6	42.9	30	27.3
Hashtag	45	60.0	114	77.6	58	73.4	14	66.7	0	0.0	69	62.7
Facebook Tag	7	15.6	1	0.7	19	24.1	0	0.0	0	0.0	92	83.6

Notes:

a: As at 17 August 2015

b: Values displayed within percentage column are expressed as engagement rate per 1,000 followers of Facebook page

tag feature (84% of posts) creating links between posts and other Facebook pages of people, places and/or events. Red Bull was the exception, using neither hashtags nor Facebook tags.

### Qualitative results

We identified three interwoven themes in content posted by the SSB brands we analysed: 'sporting prowess', 'masculinity' and 'the outdoors'. Coca-Cola posts were the exception and are discussed separately.

#### Sporting prowess

Sport was a dominant theme in the brands' content and, in particular, there was a focus on rising to meet challenges and succeeding. Energy drink brands focused on extreme sports and risk taking, with content related to their sponsorship of extreme sporting events and athletes. Posts depicted athletes engaging in challenging events and manoeuvres, such as motorsport tournaments and professional surfing. There were elaborate sporting environments (using

flames and fireworks), extreme weather conditions (snow) and high-energy music (punk rock or electronic music). The overall picture was one of challenge and danger.

The sport drink brands also emphasised their affiliations with sporting groups, through their sponsorship of field-based team sports such as the Australian Football League (AFL) or the National Rugby League (NRL). The content highlighted the physical challenges met by athletes and emphasised the training and endurance required to be successful (Figure 1). The content suggested that sport drinks played a role in achieving such results, by focusing on hydration, sweat, heat and electrolytes, and portraying their products as necessary for athletes' nutritional replenishment and sporting success.

The content also used science to lend validity to messaging about sporting success. For example, Gatorade ran a six-week 'Sports Science Series', sharing a video per week featuring AFL stars and scientists discussing sports nutrition and the importance of nutritional preparation and replenishment

in providing athletes with a competitive edge. The second video was titled: 'Balancing hydration needs gives players the competitive edge' with the following video excerpts [Gatorade, 2015]:

*Scientifically it shows that when you're hydrated you're performing, you're able to perform at your peak for longer.* (Tom Hawkins, Geelong Football Club) [Emphasis added]

*Having each guy understand how much fluid he needs to consume, how much energy he needs to take in, you know, the right amount of electrolytes for him, it all adds up.* (Melissa Anderson, Gatorade Sports Science Institute Principal Scientist) [Emphasis added]

The sport drink brands extended their messaging beyond sports success at an athletic level to capture everyday physical activity. Posts of everyday physical activity were often accompanied by inspirational messaging about rising to a challenge and being the best you can be in order to reach your own personal fitness goals, positioned

alongside branded content (Figure 2). Energy drink brands used a similar approach by depicting adolescents engaging in everyday sporting activities such as skateboarding. Pepsi and Gatorade both set 'Challenges' for followers, inviting them to post videos of their own talents or football-related tricks with adolescents often appearing within these videos.

### Masculinity

Sugar-sweetened beverage brands aligned their products with characteristics that symbolise masculinity in Australian culture. The SSB content was dominated by images of young men, particularly athletes, who were depicted as 'tough' through both their physical features and their sports participation. In sport drink posts, male athletes were often in sportswear, which emphasised their muscular and athletic physical features (Figure 1). Energy drinks also used male athletes within posts, focusing on external characteristics such as tattoos and beards. Women, on the other hand, rarely featured in images and, when they were present, they were either marginalised or presented in sexualised ways. For example, one image showed a woman in a sporting crowd dominated by men, another an image from the chest down of a woman running, and 'Monster Energy Girls' displayed a group of models in branded bikinis. There were very few female athletes.

Figure 1: Masculinity and sport.



Source: Powerade Facebook Post, 2015.

### Coca-Cola

Coca-Cola content was different to that of Pepsi and the sport and energy drink brands. In contrast to the emphasis in those brands on masculinity, sport and success, Coca-Cola focused on fun, happiness and friendship for young people (Figure 3).

The Coca-Cola content included both men and women and they were invariably young, lively, happy and having fun with friends. Over the six months in the sample, Coca-Cola advertised and posted photos of young people attending the following sponsored events: 'Good Life Festival' (an under-18s' music festival), 'This is Amplify' (an entertainment hub for teens), a music event held at the popular Wet'n'Wild theme park, and a gaming event held at a Westfield shopping mall featuring a guest teenage internet star. The posts often contained images of people engaging in some form of leisure with an emphasis on the concept of best friends. This extended beyond friendship between people to images of their products paired together as though they were 'friends'.

### Outdoors

All SSB brands used the outdoors as their principal setting. Energy drink brands frequently shared videos and images that featured extreme locations such as deserts and mountains. Sport drink brands featured outdoor sporting environments such as cricket and football fields. The soda brands

Figure 2: Sport drinks and the everyday consumer in physical activity.



Source: Gatorade Facebook Post, 2015.

also made use of the outdoor environment. Pepsi and Coca-Cola often featured sunny outdoor locations such as the beach, a pool or the park, and Pepsi also used outdoor sport imagery. For both types of drinks, even when the image was simply of a drink, it often occurred outdoors.

### Discussion

Sugar-sweetened beverage brands use Facebook in a way that positions them within socio-cultural norms and practices deemed important by young people. While advertising through traditional media associates products with socio-cultural practices and norms of importance, advertising through social media further affords brands the opportunity to provide users with a way to engage directly with those practices and norms. This occurs, firstly, through situating the brands in young people's leisure space and, secondly, through sharing engaging content that aligns with youth interests.

### Situating SSB brands in young people's leisure space

Young people seek to find spaces of leisure in which they can distance themselves from the supervision of adults and the stresses of everyday life.<sup>40</sup> The online environment allows unregulated participation in leisure activities located in adult-regulated physical spaces such as their homes or schools.<sup>28</sup> Social media is therefore an extension of the space in which young people participate in leisure and is used by young people in ways not unlike other spaces of leisure, that is, to socialise, build social status and work on self-identity.<sup>28,44,52,55</sup> SSB brands provide

Facebook users ways to engage in leisure activities, for example, through sharing high-quality videos and web links to other sources of entertainment. In doing so, SSB brands are not only associating their products with leisure but are also providing a source of leisure for young people.

While traditional marketing has been predominantly passive, social media platforms such as Facebook allow for direct engagement between brands and social media users.<sup>33</sup> It is uncommon for SSB brands to directly ask users to like, comment on or share their content. Engagement is often implicitly encouraged. For example, in this study brands posed questions to users and provided users with incentives to create and share branded content. In doing so, SSB brands provide users the opportunity to engage in ways that allow for and encourage self-expression and social identity construction. Given that young people use social media platforms as a route to express themselves and construct a social identity,<sup>52</sup> content posted by SSB brands may particularly appeal to young people.

Providing users with tools to express themselves creatively results in increased user engagement.<sup>56</sup> User-generated or co-created content has specifically been shown to positively influence brand perception, consumer loyalty, emotional bonding, trust and commitment to a brand.<sup>55</sup>

Further, generating engagement with the brands' content also acts to increase the organic reach of the brands' advertising. That is, users are more likely to view brand content through their friends' interactions with a brand.<sup>53</sup> As a result, the brands' marketing is amplified. This also acts as a form of peer endorsement for brands.<sup>33,53</sup>

### Sharing content that aligns with youth interests and socio-cultural values

Advertising food and beverages through sport is not a new technique<sup>20</sup> and was largely reflected in content shared by SSB brands on Facebook. Sport drink brands use popular sporting athletes in conjunction with nutritional science to position their products as performance-enhancing. Through extending their messaging to the practice of everyday physical activity, sport drink brands decontextualize the nutritional science that builds the basis of their advertising. In doing so, they are capitalising on the current era of

Figure 3: Friendship, fun and happiness.



Source: Coca-Cola Facebook Post, 2015.

'functional nutritionism' in which a reductive approach is taken to emphasise the role that isolated nutrients play in bodily functions.<sup>57</sup> Sports drinks therefore gain a 'health halo' whereby their association with sporting prowess may result in perceptions of health benefits associated with consumption.<sup>20,58</sup> Achieving sporting prowess is considered by young people to be an important part of the Australian identity.<sup>42</sup> Further, advertising sports drinks as playing a role in achieving sporting prowess resonates with young adolescents who cite energy, hydration and enhanced performance as important contributors to their sports drink consumption.<sup>48</sup>

With young men the highest consumers of sports and energy drinks,<sup>11</sup> it is not surprising that images of young men dominate these SSB brand pages and that sport and masculinity are core themes in their content. Competitive sport, sporting success and a muscular physique are all symbols of hegemonic masculinity,<sup>45,46,51</sup> and energy drinks use the 'authentic toughness' of participation in extreme sports to symbolise masculinity.<sup>39</sup> Through sharing content that heavily focuses on these characteristics, SSB brands not only reinforce that such qualities play an important role in the construction of masculinity and should therefore be desired, but the brands also associate their products with achieving this. Given the importance for young men of expressing masculinity,<sup>41,45-47,59</sup> they are likely to be particularly susceptible to the marketing of SSBs that associate their products with masculinity and with

achieving these characteristics. Further, the use of extreme sports has previously been documented as an effective strategy to advertise to young males.<sup>49-51</sup>

The outdoors is an evocative symbol in Australian culture and SSB brands may use it to send a range of messages. For many young Australians, the outdoors symbolises the relaxed and carefree nature of their lifestyle and is a space for leisure activities.<sup>42</sup> It can also symbolise freedom for young people as they seek to distance themselves from the constant supervision of adults.<sup>40</sup> The use of exotic and picturesque images of outdoor locations has the potential to be an effective technique for marketing brands associated with extreme sports,<sup>51</sup> as was seen in content shared by energy drinks.

Positioned as a product for everybody, the content shared by Coca-Cola on Facebook differs from that of sports and energy drinks that aim to target specific sub-groups. Coca-Cola's Facebook content is consistent with its long history of branding itself with universally relevant and desired qualities, particularly happiness and fun. Coca-Cola uses its content to associate its products with the expression of friendship, which is likely to appeal to young people for whom peer engagement is important.<sup>40,43</sup> Youth friendships also play a large role in driving youth consumption.<sup>43</sup> In response, marketers are able to use the unique dynamics of social media platforms such as Facebook to harness existing peer friendships and drive peer-to-peer marketing.<sup>43</sup>

In contrast to other brands, content posted to the Pepsi page was predominantly for the sugar-free product Pepsi Max. Since data collection, the Pepsi page now directs to a Pepsi Max branded page (<https://www.facebook.com/PepsiMAXAustralia>). Market data reflects that Pepsi Max was PepsiCo's top selling brand and the third-highest selling brand of soft drink in the Australian market during 2014.<sup>60</sup> PepsiCo's focus on the Pepsi Max branding may be an attempt to reconnect with, or even to redefine, their target audience. Content posted by Pepsi shared more similarities with that of sports and energy drink brands, specifically regarding sport, compared with the content posted by Coca-Cola. This may reflect a targeted approach to market to young males, who are the highest consumers of these beverages.<sup>11</sup> It may also reflect an attempt to address increased consumer concern about the sugar content of soft drinks.<sup>61</sup> Beverage companies have reported increased shifting to non-nutritively sweetened beverages as the industry's 'solution' to obesity.<sup>62</sup>

### Implications for public health

The advertising model of Facebook is designed to encourage users to share personal information to facilitate targeted marketing, all of which is hidden from users.<sup>24</sup> The breadth and depth of information generated through social media is unprecedented and promises to become even more extensive in the near future.<sup>24</sup>

Current restrictions on the advertising of unhealthy food and beverages to young people around the world, including Australia, remain narrowly defined and patchy, and often take a platform-specific approach.<sup>63</sup> Restrictions remain primarily targeted to children, excluding adolescents and young adults,<sup>64</sup> are largely self-regulated and prove to be ineffective both offline and online.<sup>35</sup> With respect to social media platforms, the only restrictions are the age limits set by the platform (users are required to state that they are aged 13 or over). As a result, adolescents and undoubtedly many young people aged below 13 years are being exposed to a large amount of unhealthy food and beverage advertising.<sup>35</sup>

Advertising through traditional media can be seen by all members of the public, allowing for monitoring by public health advocates, the wider community and regulators. By contrast, social media platforms, which

can target advertising based on selected demographic variables, make such monitoring more difficult. Despite this, the need to monitor advertising via social media and understand the exposure to, and impact on, young people persists. Calls have long been made to regulate marketing of unhealthy foods and beverages to children and adolescents on traditional media. Social media platforms are a new, important and influential medium. These platforms are as important in that policy debate, given the exposure that they generate. Facebook has already implemented advertising guidelines that prohibit or restrict the advertising of harmful products such as tobacco and alcohol.<sup>65</sup>

The public health community can also harness the capabilities of social media platforms to counter-market SSB advertising through promoting healthy dietary habits among young people.<sup>64,66</sup> We can learn from the communication and social media specific techniques used by large corporations.<sup>67</sup> Efforts will need to go beyond a simple presence on social media and the online environment. Rather, organisations will need to invest in creating engaging content that benefits young users beyond the direct public health messaging communicated and that aligns with the values and practices deemed important by this audience. Although this kind of content may not be suitable for all public health messaging, effective examples can be seen in the likes of the Truth<sup>®</sup> social media campaign that counter-markets tobacco advertising.<sup>68</sup>

### Limitations

It is important to note that the content viewed on Facebook pages by the research team may not match the content viewed by young people on their newsfeeds, due to the complex algorithm used by Facebook that incorporates the degree of interaction an individual and their Facebook friends have with the page.<sup>53</sup> Brand pages can also select the demographics of Facebook users who can see their posts, and this may have restricted the content viewed by the account used for data collection. This was problematic when accessing energy drink pages, particularly Red Bull, as it was evident that content shared on these pages often used custom privacy settings. This may have resulted in the low sample number of Red Bull posts compared to other pages, and it is therefore likely that the content included within this study is

an under-estimation of the true amount of content shared by SSB brands.

It was a limitation of this study that post engagements were unable to be analysed by demographics and therefore represent users of all ages. The results of this study are also unable to determine if the advertising of SSBs on Facebook influences consumption, nor whether the advertising effect is more pronounced in young people than other demographics; further research is needed to explore these questions. The findings of this study were also limited to the content posted by the brands. Further research into the comments left on brand posts would provide insightful data regarding user engagement and response to the content posted by these brands.

Lastly, we analysed only six of the most popular beverage pages on Facebook. This study may therefore not be generalisable to the techniques used by all SSB brands, especially less-known products that use social media to establish their brand, and it may also not accurately reflect techniques used across all social media platforms.

### Conclusion

This study has demonstrated that SSB brands use the social media platform Facebook to align their marketing with the socio-cultural values and practices regarded as important by young people today. Through delivering content on Facebook, SSB brands can not only associate their products with leisure but also provide a source of leisure for young people. In doing so, they portray their products as having a normal place within the everyday lives of young people.

The findings provide those working in public health advocacy and policy with challenges and opportunities to consider for future policy debates on obesity reduction strategies. Public health advocates working to reduce the marketing of SSBs should be aware of the unique opportunities offered to marketers via social media as well as the vulnerability of young people to the marketing of these products, especially via this form of media. Policy responses to marketing need to be formulated in ways that capture traditional, present and potential future media and that protect not only children but also adolescents and young adults.

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## Supporting Information

Additional supporting information may be found in the online version of this article:

**Supplementary Table 1:** Codes used in analysing the marketing techniques and content shared by sugar-sweetened beverage brands on Facebook.