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Gambling advertising on Twitter before, during and after the initial Australian COVID-19 lockdown







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FULL-LENGTH REPORT



ABSTRACT

Background and aims: COVID-19 resulted in the shutdown of almost all sporting competitions and most venue-based gambling opportunities. This study examines how wagering operators in Australia responded, by examining their advertising. *Methods:* The study compared Twitter activity during lockdown (March–May 2020) to the previous year for four major wagering operators. *Results:* Wagering operators continued to advertise in earnest, changing their marketing mix to include more race betting content, as races continued to operate. Most also promoted the only sports available, such as table tennis or esports. When sports resumed, sports betting advertising quickly returned to normal, or exceeded previous levels. Despite more content being available in the case of two operators, engagement from the public during lockdown was similar to or lower than previously. *Discussion and conclusion:* These results indicate that gambling operators can adjust quickly to major changes. These shifts appear to have been successful, with the increase in race betting during this period almost completely offsetting the decreases in sports betting. This is likely due in part to changes in advertising, which have been associated with increased betting activity, particularly amongst vulnerable people. Responsible gambling messages were virtually non-existent on Twitter, which contrasts with mandatory requirements in other media. The study highlights that regulatory changes to advertising, e.g., banning some content, are likely to be met with substitution of content, rather than reduction, unless advertising volume is also capped. The study also highlights the adaptive capacity of the gambling industry in the face of major disruption to supply.

KEYWORDS

gambling, advertising, COVID-19, Twitter

INTRODUCTION

The COVID-19 pandemic has caused a major shift in the provision and consumption of gambling due to associated lockdowns, restrictions on social gatherings, and reductions in gambling opportunities (Stark & Robinson, 2021). COVID-19 containment measures have periodically curtailed the operation of land-based gambling venues and professional sporting events that attract large betting markets. In contrast, many forms of online gambling have remained accessible and may have attracted additional consumption as a substitute for in-venue gambling.

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In addition to changes to supply, the pandemic has potentially affected the demand for gambling. For example, several established risk-factors for gambling and gambling-related harm have been heightened by the pandemic. Boredom (Hing, Russell, Tolchard, & Nower, 2016; Mercer & Eastwood, 2010; Wood & Griffiths, 2007), loneliness (John, Lee, Wardle, McManus, & Dymond, 2019; McQuade & Gill, 2012), anxiety, depression, and psychological distress (Barnes, Welte, Tidwell, & Hoffman, 2015; Barrault & Varescon, 2013; Oksanen, Savolainen, Sirola, & Kaakinen, 2018) increase the appeal of gambling as a coping mechanism for social isolation and negative mood states. Internationally, the pandemic has contributed to increased alcohol consumption (Barbosa, Cowell, & Dowd, 2021; Grossman, Benjamin-Neelon, & Sonnenschein, 2020; Pollard, Tucker, & Green, 2020; Vanderbruggen et al., 2020) which is associated with gambling problems (Barnes et al., 2015; Edgerton, Keough, & Roberts, 2019; Martin, Usdan, Cremeens, & Vail-Smith, 2014; Thorne, Rockloff, Ferguson, Vincent, & Browne, 2021). Individuals experiencing financial stress due to the pandemic may view gambling as a potential source of income (Olason, Hayer, Meyer, & Brosowski, 2017). These risk-factors have been experienced by large segments of the global population in a concentrated period, highlighting the importance of monitoring the impacts of the pandemic on gambling and related harms.

The impact of the pandemic on gambling consumption has varied amongst different sub-populations. Systematic reviews of the impact of COVID-19 lockdowns on gambling and gambling disorder reported an overall reduction in gambling expenditure and frequency across numerous countries, and increased online gambling in some countries (Hodgins & Stevens, 2021; Quinn, Grant, & Chamberlain, 2022). A minority of people increased their gambling during lockdowns, and were more likely to be male, younger, have a history of gambling problems and report mental health concerns, and experience boredom and financial stress. In one of the most rigorous longitudinal studies published to date, based on a weighted Canadian sample ($N = 34491$) (Shaw et al., 2022), predictors of problem gambling severity included impulsivity, tobacco use, stress, younger age, and increased online gambling, gambling fallacies, total gambling losses, gambling frequency, time spent gambling, and types of gambling engaged in.

Overall, the COVID-19 pandemic appears to have resulted in changes in gambling opportunities and a tendency for more involved gamblers and people with existing gambling problems to increase their gambling. This points to the importance of examining how the gambling industry may have changed its practices during the pandemic in ways that may have impacted on vulnerable people.

Wagering advertising

Wagering operators utilise a proliferation of marketing strategies to secure brand recognition and market share. In Australia, yearly expenditure on gambling advertising increased 320% to \$287.2 million between 2011 and 2021,

with three-quarters attributable to wagering operators, and with 948 gambling advertisements per day on free-to-air television in the state of Victoria alone (Hetherington & Phillips, 2023). Wagering marketing is also pervasive in online and social media, direct emails, text messages, and phone calls from wagering operators to their account holders, and in more traditional media including print, radio, and outdoor signage (Hing, Russell, Rockloff, et al., 2018). Inducements to bet, such as bonuses and special offers, are a prominent feature of this advertising (Hing, Russell, Rockloff, et al., 2018; Hing, Sproston, Brook, & Brading, 2017; Russell, Hing, Browne, & Rawat, 2018).

A critical and meta-analytic review (Bouguettaya et al., 2020) indicated a positive association between exposure to gambling advertising and gambling-related attitudes, intentions, and behaviour. A literature review of gambling marketing from 2014 to 2018 (Newall et al., 2019), incorporating literature mainly from Australia and the UK, identified three key findings. First, gambling marketing is most highly targeted and pervasive around sport, with popular strategies including growing brand awareness, advertising complex betting odds, and providing complex financial inducements for betting. Second, vulnerable groups, including problem gamblers and children, appear to be influenced by this targeted content. Third, more frequent and riskier gambling behaviour is associated with greater awareness of gambling marketing. A multi-method study found that exposure to wagering advertising predicted more favourable attitudes to betting, increased intention to bet, greater frequency of betting, placement of larger and riskier bets, and betting on impulse (Hing, Russell, Rockloff, et al., 2018; Russell et al., 2018).

Wagering operators are nimble at adapting their advertising in response to changing conditions. For example, following 2018 Australian restrictions to gambling advertising during sports broadcasts in general TV viewing hours, wagering operators shifted to advertising after 8.30 pm, dispersed their advertising into general programming and non-sports content, and increased their overall advertising by 50% (Australian Communications and Media Authority, 2019a, 2019b; Hetherington & Phillips, 2023). Wagering operators also avoid some advertising restrictions placed on traditional media through their widespread use of direct messaging and digital media (Gainsbury, King, et al., 2015; Hing, Russell, & Rawat, 2018; Russell et al., 2018), including social media, such as Twitter (Bradley & James, 2019; Killick & Griffiths, 2020). Since wagering operators have shown they can adapt their advertising in response to challenges, it is likely they made substantial changes to their advertising during COVID-19 restrictions.

COVID-19 restrictions in Australia

In Australia, a national pandemic lockdown from 23rd of March 2020 resulted in the temporary closure of land-based gambling venues, including hotels, clubs, casinos and betting shops until June-July 2020, with some variations in re-opening dates and subsequent restrictions between states



and territories. These restrictions meant that consumers were unable to access electronic gaming machines (EGMs), casino games, or bingo, all of which can be legally provided only in land-based venues. Most professional sports competitions, excluding racing, minor sporting competitions, and esports, were cancelled or paused along with practically all other major sporting competitions around the globe (Reuters, 2020). The Australian Football League (AFL) and National Rugby League (NRL) seasons had just begun when the lockdown commenced, representing a major disruption for wagering operators as these are the two most popular sports betting activities in Australia (Gainsbury & Russell, 2015). When the AFL and NRL competitions resumed in May-June 2020, it was expected that wagering operators would escalate their sports betting advertising for three reasons. First, to recoup lost revenue due to suspended sporting events; second, to retain new online customers they may have gained due to venue closures; and third, to capitalise on pent-up demand. Notably, there were no additional advertising restrictions imposed on wagering providers in Australia during the pandemic. Resultantly, wagering operators were able to adapt their advertising to suit changing circumstances and opportunities. Given the volume and impact of wagering advertising and its effects on gambling behaviour, it is important to understand changes in wagering advertising during this time, as this can inform how wagering operators react to other potential restrictions, such as regulatory change.

Research questions

The present study aimed to address four research questions:

1. What products did the major wagering operators advertise and promote online during the COVID-19 lockdown period?
2. Did consumers engage with different content during the COVID-19 lockdown period?
3. What products did the major wagering operators advertise and promote online as sports (particularly AFL and NRL) resumed?
4. How did these advertisements compare to pre-COVID advertising?

METHODS

The current analysis focused on the nationwide Australian lockdown period from 23rd March to 23rd May 2020. At the time of data collection in late May 2020, it was the only lockdown period that had occurred in Australia. Data were drawn from public tweets from the accounts of four major online wagering operators: Sportsbet, Ladbrokes, TAB and BetEasy; some of the largest Australian-licensed operators who also have large Twitter followings. Tweets were captured from 24th February 2019 to 17th July 2020, to assess advertising during and immediately after the lockdown, as well as the equivalent period from 2019. The

equivalent period from 2019 was used as a baseline for comparison due to the seasonality of major betting events, such as racing and sporting events.

The Twitter data were purchased from Vicinitas, a company specialising in the provision of historical Twitter data. For each tweet, the data included the date, user engagement/reactions (favourites, retweets) and the text/content of the tweet.

Analysis

First, tweet volume over time was examined for each operator. Second, word searches were used to create a list of the 1,000 most common words in the tweet content for each operator, excluding common words such as “the” and “for”. These words were classified into categories. For example, words such as AFL, NRL, names of sporting teams, or hashtags such as #ausopen were classified as sports terms. Words such as races, gelding, or race track names such as Flemington or Ascot were classified as race terms. Responsible gambling terms included terms such as responsible, while novelty bets included terms such as election and reality TV show names. Esports and table tennis terms were classified separately to regular sports because they are not typically promoted by operators, but were actively promoted during the COVID lockdown period in place of sports that were suspended. Terms that did not clearly apply to one category were not classified, e.g., winner. These categories were determined prior to classification of terms. Each tweet was assessed by using word searches to determine the number of words in each tweet that fell into each category. If a tweet included only race words, then it was classified as a race tweet. If a tweet included mostly race words but one term from another category (e.g., a single sports term), then it was classified as a race tweet. Any tweets that could not be classified (e.g., tweets that only included emojis, or tweets that were not related to any of the above categories, or required clicking on a link to understand the content) were classified as “other”. Of the ~53,000 tweets, approximately 4,000 could not be classified based on this procedure, for example if they included similar numbers of race and sports terms, or because the tweet did not include any of the most popular terms. These tweets were manually classified by reading the tweet and determining the appropriate category. After classification, a sample of 5,000 tweets were examined to determine classification accuracy, and very few (<0.5%) were misclassified, indicating that the classification approach was largely accurate. For engagement, the mean number of likes/favourites and retweets per tweet were examined, rather than total number of likes/favourites and retweets, since the latter would reflect the number of tweets rather than user engagement.

Total number of tweets and content from the lockdown period were compared to the same period in 2019. Most variables were sparse and showed over-dispersion on a per-day basis, so the analysis was conducted on a per-week basis, which yielded a more tractable distribution for modelling. The total number of tweets were calculated for each week, leading to a comparison of counts across 18 weeks, 9 in each time period. A negative binomial



generalised linear model was a good fit to the weekly count of tweets. Engagement data, being numerical rather than a count, were log(+1) transformed to stabilise the variance, and analysed with a general linear model.

Ethics

The study procedures were carried out in accordance with the Declaration of Helsinki. The data reported form part of a broader study, with ethics granted by CQUniversity Human Research Ethics Committee, clearance number 22418. Twitter data were linked to corporate accounts, not individuals, and people who engaged with the tweets were not identifiable in the data. The tweets extracted were only those created by the operators, and no replies to users were captured.

RESULTS

Volume

Almost 53,000 tweets were extracted across the four operators (9,148 from BetEasy; 13,565 from Ladbrokes; 14,218 from Sportsbet; and 15,991 from TAB). Table 1 summarises

Table 1. Proportion of tweets from each category per operator for the year prior to COVID lockdown (23rd March 2019 to 22nd March 2020)

Category	BetEasy	Ladbrokes	Sportsbet	TAB
Sports	51.8	66.1	75.6	31.7
Racing	35.1	33.4	11.6	64.7
Novelty	0.5	0.3	4.3	0.2
RG	11.3	0.2	5.7	0.1
Other	1.2	0.1	2.8	3.3
Esports/Table tennis	0.0	0.0	0.0	0.0

the typical tweet content for the year prior to COVID lockdown, showing that Sportsbet, Ladbrokes and BetEasy usually tweeted more about sports, while TAB usually tweeted more about racing. The operators differed in their response to the lockdown (see Fig. 1 and Table 2). Two operators, Sportsbet and Ladbrokes, tweeted significantly less during the lockdown period, compared to the corresponding period in 2019 at three-quarters and two-thirds of 2019 levels, respectively. Both typically tweeted more about sports than racing prior to lockdown. In contrast, TAB, which predominantly tweeted about racing prior to lockdown, significantly increased their tweeting to levels higher than the previous 12 months, up 46% compared to 2019 levels. BetEasy also tweeted significantly more during the lockdown than during the equivalent 2019 period (up 326% compared to 2019 levels), but this was part of a year-long trend of increasing Twitter posts. In the month immediately after the designated lockdown period, tweeting by Sportsbet and Ladbrokes increased as sports restarted, up 33% and 55% vs lockdown levels respectively. TAB and BetEasy showed a slight upward trend, up 19% and 9% of lockdown levels, respectively. The companies that tweeted less during lockdown (Sportsbet and Ladbrokes) tweeted at much the same level as 2019 once lockdown ended and sports resumed, indicating that these reductions were short term.

Content

The operators differed in the content of their tweets during the lockdown period. BetEasy (see Fig. 2) moved to promoting races almost exclusively at the start of the lockdown period, with a large and statistically significant increase in race betting tweets, as well as tweets about esports and table tennis and novelty bets. Ladbrokes (see Fig. 3) changed their marketing mix to include significantly more tweets about

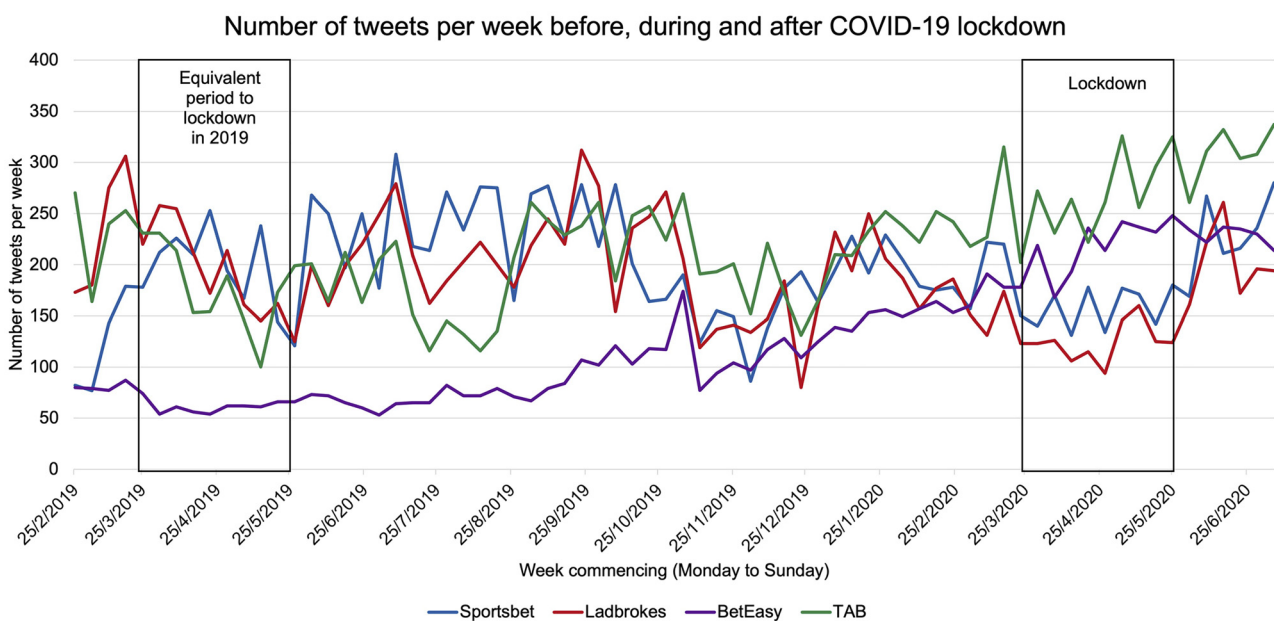


Fig. 1. Number of tweets per week by four gambling operators before, during and after COVID-19 lockdown



Table 2. Mean number of tweets per week by category from each operator immediately before, during and immediately after lockdown in 2020, and the equivalent period in 2019. Figures are the average number of tweets of each type per week

Operator	Content	2019 4 weeks before	2019 Lockdown (equiv)	2019 4 weeks after	2020 4 weeks before	2020 Lockdown	2020 4 weeks after	2020 as % of 2019	Inferential statistics			
									Unstd Coeff	Std error	Z	p
BetEasy	Sports	18.3	30.8	34.8	115.0	40.3	94.8	130.8%	0.091	0.151	0.60	0.546
	Racing	45.8	24.4	23.0	78.3	190.4	182.0	780.3%	1.825	0.09	20.34	<0.001
	Novelty	1.3	0.3	0.0	0.8	5.1	0.0	1700.0%	2.539	0.686	3.70	<0.001
	RG	14.3	7.1	16.0	17.5	18.7	18.0	263.4%	0.850	0.495	1.72	0.086
	Other	1.3	1.6	1.0	1.8	1.7	0.0	106.3%	0.154	0.535	0.29	0.773
	Esports/ Table Tennis	0.0	0.0	0.0	1.8	14.2	3.0	-	4.585	1.026	4.47	<0.001
	Total	81.0	64.4	74.8	215.2	274.3	297.8	425.9%	1.250	0.062	20.04	<0.001
Ladbrokes	Sports	143.8	156.7	124.3	90.8	27.3	103.0	17.4%	-1.746	0.196	-8.91	<0.001
	Racing	88.0	42.1	46.5	68.8	84.9	87.5	201.7%	0.701	0.129	5.42	<0.001
	Novelty	0.8	0.9	0.0	0.3	1.6	0.5	177.8%	0.560	0.878	0.64	0.524
	RG	0.3	0.1	0.0	0.5	1.1	0.5	1100.0%	2.303	1.103	2.09	0.037
	Other	0.8	0.1	0.0	0.3	0.0	0.3	0.0%				N/A
	Esports/ Table Tennis	0.0	0.0	0.0	0.0	9.3	0.3	-	4.431	1.043	4.25	<0.001
	Total	233.7	199.9	170.8	160.7	124.2	192.1	62.1%	-0.476	0.084	-5.69	<0.001
Sportsbet	Sports	56.5	142.9	183.0	131.8	74.1	148.5	51.9%	-0.657	0.087	-7.57	<0.001
	Racing	41.8	28.0	11.0	30.3	47.3	27.5	168.9%	0.525	0.140	3.76	<0.001
	Novelty	3.8	12.6	0.0	15.3	12.7	13.0	100.8%	0.009	0.417	0.02	0.983
	RG	13.3	12.2	12.5	13.0	13.4	13.5	109.8%	0.095	0.132	0.72	0.469
	Other	5.0	6.8	2.5	4.0	5.7	4.3	83.8%	-0.179	0.219	-0.82	0.413
	Esports/ Table Tennis	0.0	0.0	0.0	0.0	1.6	0.0	-	2.639	1.098	2.40	0.016
	Total	120.4	202.5	209.0	194.4	154.8	206.8	76.4%	-0.268	0.069	-3.91	<0.001
TAB	Sports	74.8	57.9	71.8	74.5	33.4	90.3	57.7%	-0.549	0.119	-4.60	<0.001
	Racing	155.8	116.1	119.3	162.0	206.6	190.5	178.0%	0.576	0.109	5.28	<0.001
	Novelty	0.3	0.2	0.0	0.3	0.1	0.0	50.0%	-0.693	1.225	-0.57	0.571
	RG	0.5	0.0	0.5	0.5	8.0	5.8	-	4.277	1.077	3.97	<0.001
	Other	0.5	2.6	2.5	13.3	10.6	20.8	407.7%	1.418	0.232	6.10	<0.001
	Esports/ Table Tennis	0.0	0.0	0.0	0.0	0.2	0.0	-	0.693	1.225	0.57	0.571
	Total	231.9	176.8	194.1	250.6	258.9	307.4	146.4%	0.382	0.092	4.15	<0.001

Note: Lockdown period defined as 23rd March to 23rd May 2020. Note percentage change could not be calculated for categories where zero tweets occurred in the 2019 lockdown equivalent period. Ladbrokes “other” could not be statistically analysed due to sparseness. Unstd Coeff = unstandardised coefficient.



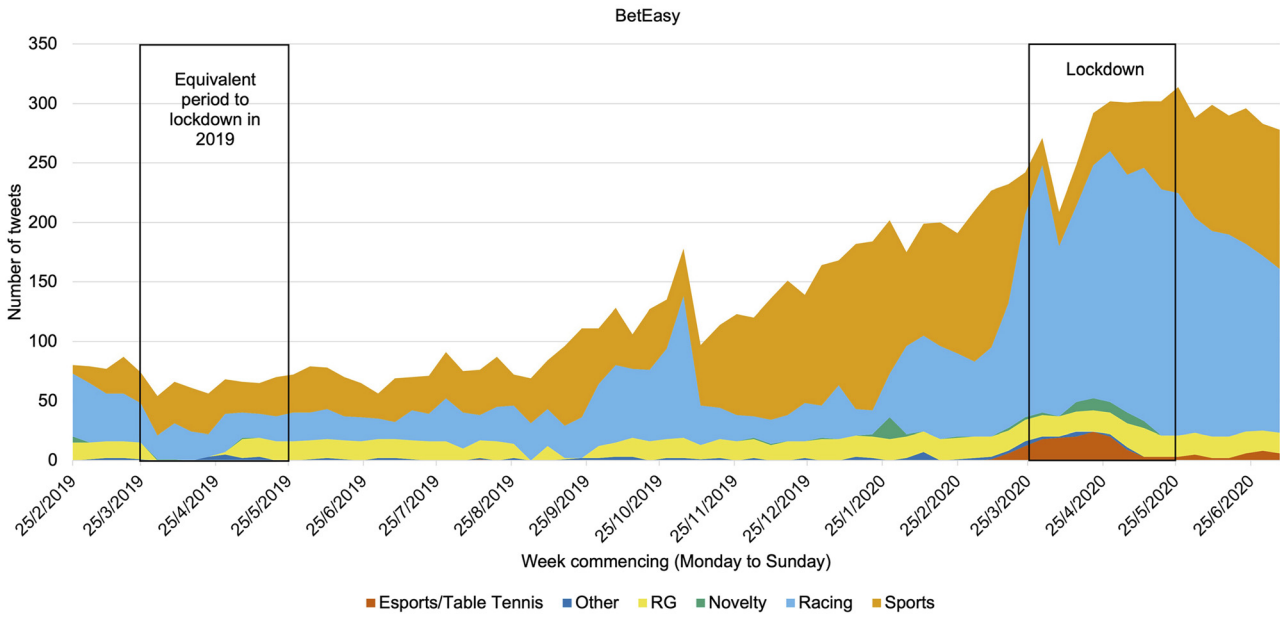


Fig. 2. Content of tweets per week before, during and after COVID-19 lockdown – BetEasy

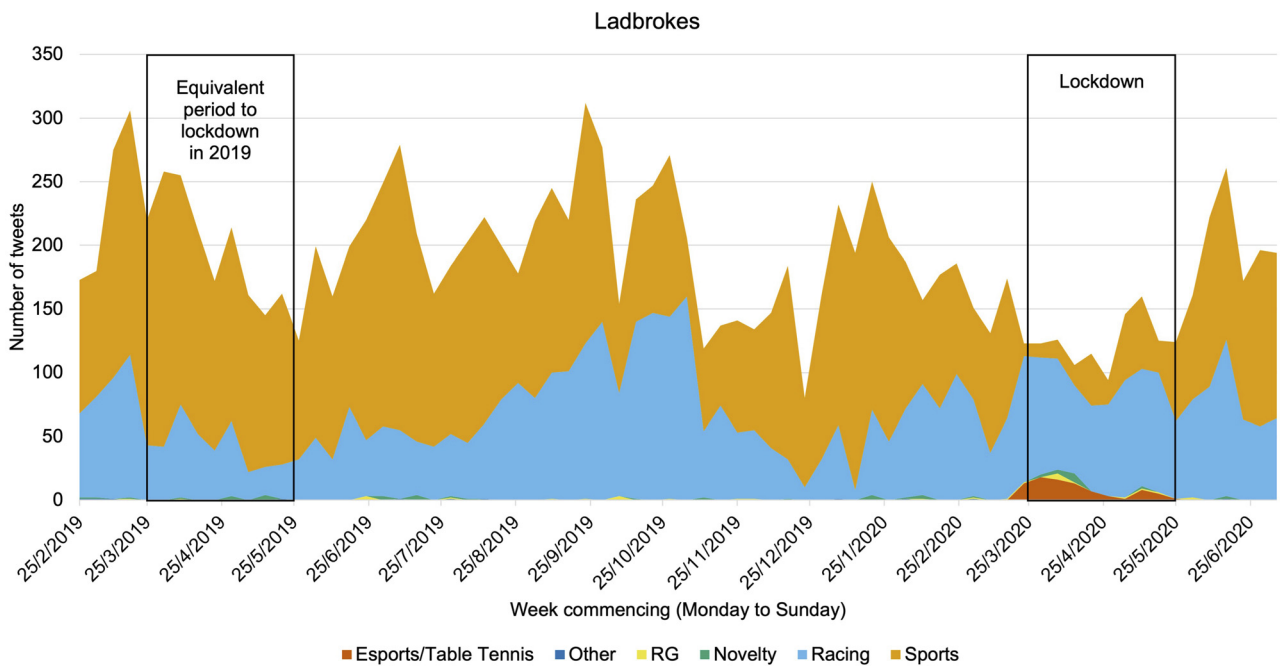


Fig. 3. Content of tweets per week before, during and after COVID-19 lockdown – Ladbrokes

racing, and significantly fewer sports tweets, with a significant increase in tweeting about esports or table tennis from the start of the lockdown period. Sportsbet (see Fig. 4) showed a similar pattern to Ladbrokes. TAB (see Fig. 5) almost completely stopped tweeting about sports and tweeted almost exclusively about racing. Once sports resumed, the number of sports tweets once again increased for all operators, mostly at the expense of esports and table tennis tweets and race tweets for most operators, as well as responsible gambling tweets for TAB. Both Sportsbet and BetEasy regularly tweeted responsible gambling messages,

while TAB only did so a week into the lockdown period and stopped once sports resumed. Ladbrokes, in contrast, seldom tweeted responsible gambling messages.

Engagement with tweets

Figure 6 and Table 3 show the mean number of likes/favourites and retweets per tweet for each operator. Engagement with tweets was generally lower in lockdown than the same period in the previous year, with reductions between 10% and 82%, with the only non-significant association being for favourites for TAB. For two of the



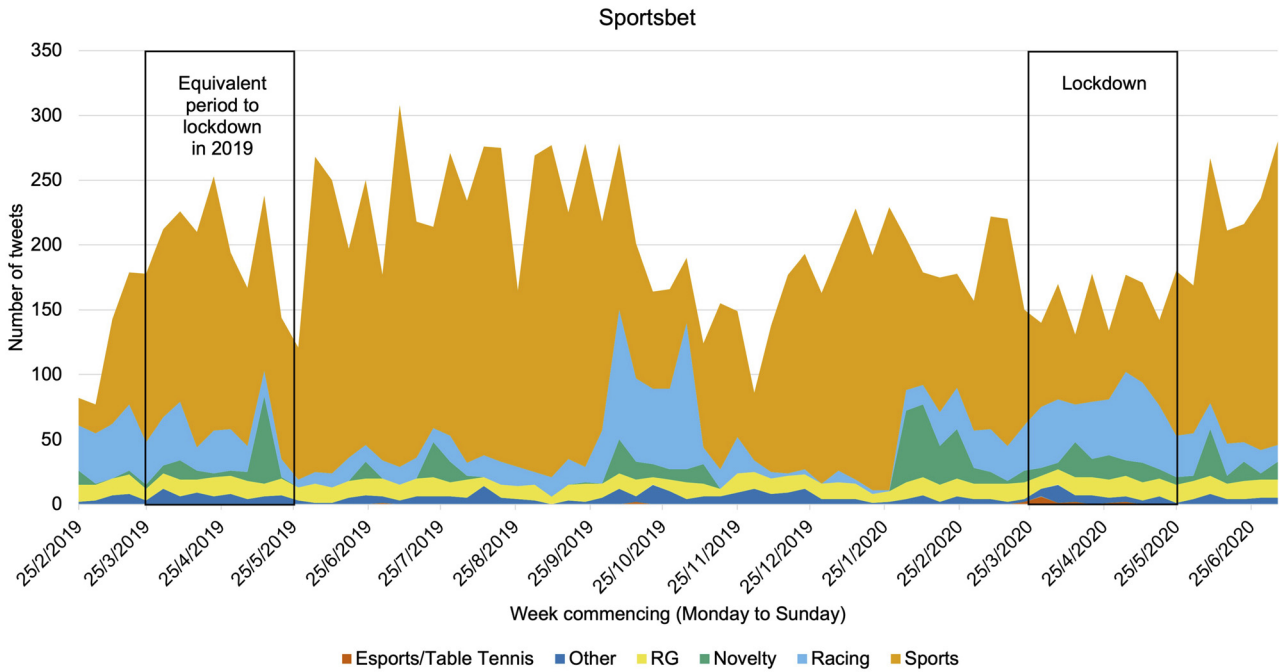


Fig. 4. Content of tweets per week before, during and after COVID-19 lockdown- Sportsbet

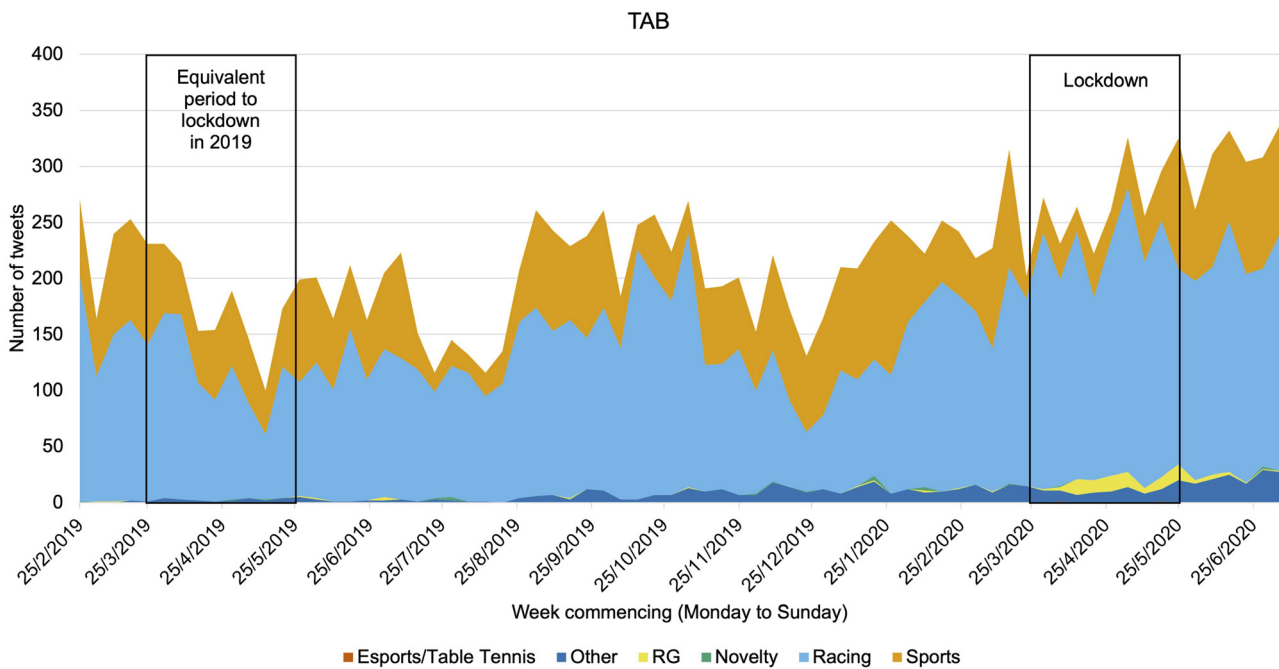


Fig. 5. Content of tweets per week before, during and after COVID-19 lockdown – TAB

operators, BetEasy and TAB, engagement was higher in lockdown than the period before or after lockdown, whereas for Ladbrokes and Sportsbet, engagement with tweets was lower during lockdown than the period before or after lockdown.

This figure also depicts general peaks in engagement around popular betting events, such as certain racing events (Spring Racing Carnival and Melbourne Cup, late October to early November) and AFL/NRL finals (September to early

October). For BetEasy and TAB, the equivalent period from 2019 was also a peak engagement period. An examination of the most popular tweets for BetEasy and TAB during that time revealed that they were associated with a racehorse, Winx, who gained major public attention after winning 33 consecutive races, with her last races occurring during this period. Thus, the peaks during the equivalent period to lockdown in 2019 for TAB and BetEasy likely reflect a particularly rare racing event.



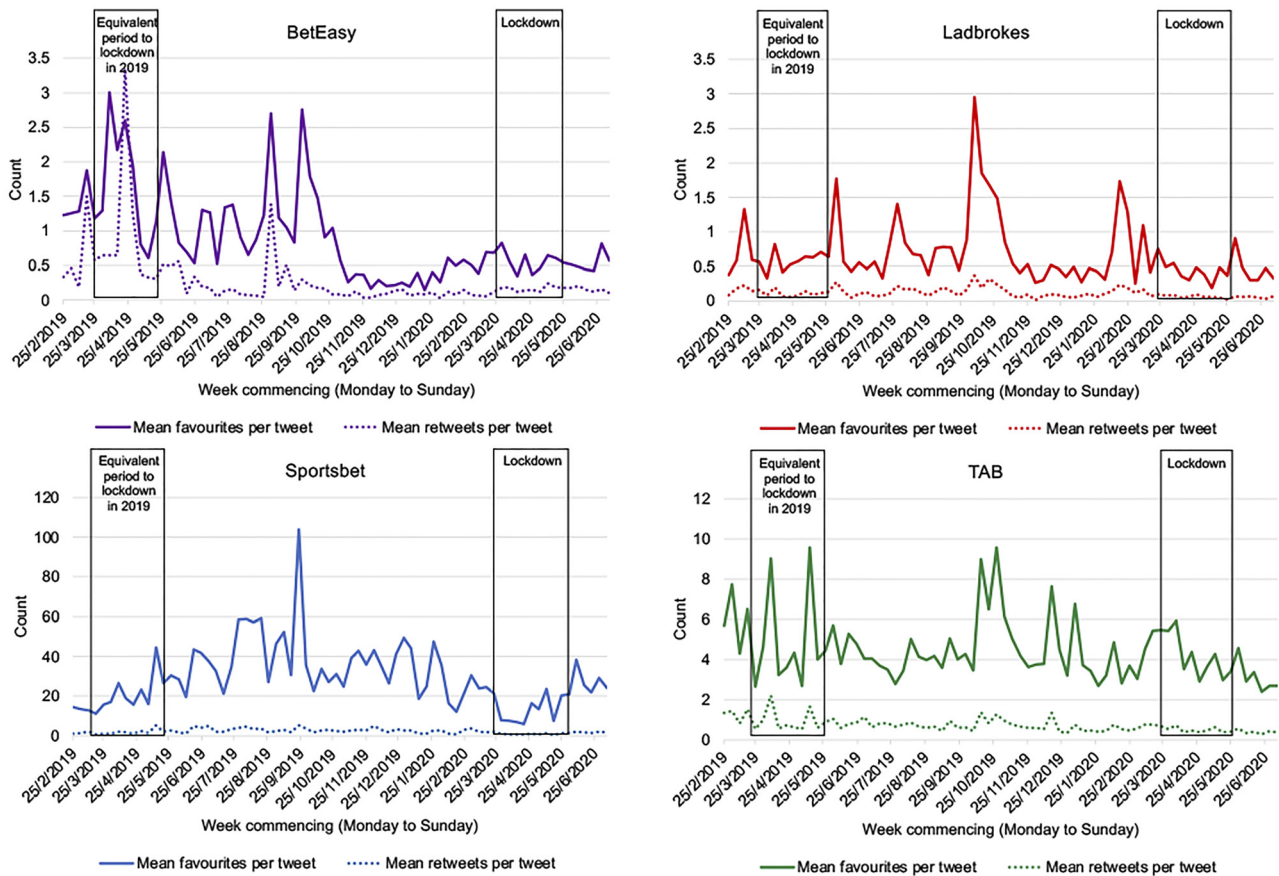


Fig. 6. User engagement with tweets per week before, during and after COVID-19 lockdown – All operators

Table 3. Mean number of likes or retweets per week from each operator immediately before, during and immediately after lockdown in 2020, and the equivalent period in 2019. Figures are the average number of tweets of each type per week

Operator	Measure	2019	2019	2019	2020	2020	2020	2020 as % of 2019	Inferential statistics			
		4 weeks before	Lockdown (equiv)	4 weeks after	4 weeks before	Lockdown	4 weeks after		Unstd Coeff	Std error	Z	p
BetEasy	Likes	1.41	1.64	1.26	0.54	0.57	0.49	34.8%	-8.025	2.253	-3.56	0.003
	Retweets	0.62	0.90	0.41	0.08	0.16	0.17	17.8%	-7.103	4.561	-1.56	0.139
Ladbrokes	Likes	0.72	0.58	0.85	0.76	0.44	0.51	75.9%	-1.508	0.665	-2.27	0.038
	Retweets	0.16	0.11	0.15	0.14	0.07	0.05	63.6%	-0.404	0.211	-1.91	0.074
Sportsbet	Likes	13.01	22.73	30.60	25.10	12.33	26.20	54.2%	-77.301	29.558	-2.62	0.019
	Retweets	1.33	2.08	2.63	2.58	1.02	1.65	49.0%	-7.716	2.833	-2.72	0.015
TAB	Likes	6.05	4.86	4.79	4.17	4.28	3.56	88.1%	-6.212	7.015	-0.89	0.389
	Retweets	1.27	0.93	0.83	0.64	0.50	0.42	53.8%	-2.829	1.304	-2.17	0.046

Note: Lockdown period defined as 23rd March to 23rd May 2020. Unstd Coeff = unstandardised coefficient.

DISCUSSION

Gambling advertising has garnered significant attention in Australia in recent years due to the acknowledgement of the potential for it to cause harm, especially to more vulnerable members of the community such as children and people experiencing gambling problems (Hing, Chorney, Blaszczynski, Gainsbury, & Lubman, 2014, 2015, 2019; Nyemcsok

et al., 2018). The present study examined Twitter advertising by four Australian gambling operators prior to, during, and after the first COVID-19 lockdown in Australia to measure how online advertising changed over these periods. The data revealed marked changes in wagering advertising during the lockdown period compared to the equivalent period in the previous year and after the lockdown ended. Findings from this study reinforce earlier research highlighting the agility



of gambling operators to pivot their advertising strategies in response to a changing environment and increased competition (Hing et al., 2017; Hing, Russell, Rockloff, et al., 2018; Russell et al., 2018).

Changes in advertising patterns and engagement

Prolific marketing activity by wagering operators occurred prior to, during and after the initial COVID-19 lockdown as indicated by profuse Twitter activity from all four major domestic wagering operators in Australia. However, several key changes occurred in Twitter gambling advertising by the operators during the lockdown. During the lockdown, a large increase was observed in the promotion of race betting (a product still available), as well as the introduction of marketing of novelty betting, esports betting, and table tennis; answering Research Question 1. For example, Sportsbet's Twitter content was dominated by sports betting in 2019, with race betting making up a small proportion of all tweets, except around the Spring Racing Carnival, Australia's premiere horse racing season that includes the Melbourne Cup race. However, during lockdown, this pattern was reversed with race betting making up a large proportion of Sportsbet's Twitter content. Twitter engagement was generally lower across all the operators during lockdown, as shown by a reduced number of retweets and tweet favourites (except TAB) when compared to the same period in 2019, possibly reflecting less interest in race betting content, or that Twitter users were occupied by other events, such as the pandemic; answering Research Question 2. This drop in engagement occurred despite an increase in the volume of tweets by three of the four operators during the lockdown, as compared to the equivalent 2019 period. As sport recommenced in late May 2020, tweets advertising about sport from all four wagering operators increased but racing content also stayed relatively high for most of the operators; answering Research Question 3. Twitter engagement showed some increases but stayed relatively similar to lockdown levels in the month following lockdown. TAB and BetEasy tweeted a higher number of tweets, while Sportsbet and Ladbrokes tweeted less during lockdown, and all operators included more race betting content, compared to 2019; answering Research Question 4.

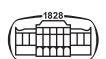
Responsible gambling messages across all operators did not echo the changes in the volume and content of the gambling advertisement and promotional tweets. TAB began to tweet responsible gambling messages twice a day during the lockdown, something they had not done in the year prior to the pandemic. However, this ceased after the lockdown, despite their overall volume of tweets trending upwards. Sportsbet and BetEasy both frequently tweeted responsible gambling messages during and prior to lockdown. Conversely, Ladbrokes tweeted significantly more responsible gambling messages during lockdown, but this represents an increase from rarely tweeting about responsible gambling messages in the year prior to lockdown. This apparent dearth of responsible gambling messaging on Twitter appears to be contrary to the mandatory

requirements for gambling advertisements on other mediums to include responsible gambling taglines. Despite some studies showing a lack of attention to responsible gambling messaging in advertising, likely due to these messages being inconspicuous and on the periphery of the screen (Lole et al., 2019), other studies have shown that more obvious warning messages can influence the recall of these messages (Gainsbury, Aro, Ball, Tobar, & Russell, 2015) and intent to gamble (Muñoz, Chebat, & Borges, 2013). The lack of responsible gambling content on Twitter is a missed opportunity for providing education and pause for consumers to reflect on their gambling.

Social media advertising as an agile beast

The rapid changes in advertising and promotional activities instigated by operators due to the sudden closure of land-based venues and pausing of competitive sports reveals the agility of these businesses to adapt their marketing to changing conditions. This study highlights that the quick response capacity of online platforms, especially social media, is particularly advantageous. The adaptability of wagering operators has been observed previously in Australia. For example, restrictions on the broadcast of gambling advertising during daytime hours and during sports matches was met by increases in gambling advertising after 8:30 pm (Australian Communications and Media Authority, 2019a, 2019b). Gambling operators are also still highly visible during sports matches due to sponsorship contracts allowing their logos to be emblazoned across many teams' shirts (Bestman, Thomas, Randle, & Thomas, 2015). This agility in advertising changing to circumvent government restrictions seems to echo that which was seen in tobacco, where sports sponsorship rapidly replaced traditional forms of advertising, that had been banned (Howard & Crompton, 2004).

The agility of operators appears to have contributed to a lucrative lockdown period for gambling operators. Interim results for Flutter Entertainment (the parent company of Sportsbet and BetEasy) show that the shift to race betting during lockdown almost completely compensated for decreases in sports betting. They note that race betting is a higher margin product compared to sports betting, and that there is a preference amongst customers for higher margin products within race betting options. Additionally, race betting was still approximately 50% higher than usual as of June 2020, a month after the lockdown had ended, whereas sports betting was close to returning to pre-lockdown levels (Flutter Entertainment, 2020). This result aligns with findings from the present study that show the increase in race wagering content during the lockdown and the retention of this volume of content even after competitive sports had resumed. Thus, it appears that despite gamblers having a preference for products, such as sports betting over racing, there is also a ready base of consumers who will substitute to other products (i.e., race betting) when their options are restricted. This has important implications when considering gambling reform. Any effort to reduce or restrict one



form of gambling is likely to induce consumers to simply switch products (at least in racing and wagering). Thus, it is important to consider any new gambling reforms holistically due to the possibility of substitution effects.

The availability of newer forms of betting that do not rely on land-based events—most notably esports—was a further development that enabled wagering operators to adapt their marketing to the lockdown conditions. International research shows that revenues from esports betting increased during the period in which traditional sporting events were not played (Gambling Commission, 2020) and some sports bettors made the transition to betting on esports (Every-Matrix, 2020). The present study shows how wagering operators used their advertising and social media presence to leverage esports to attract new customers and convert revenue from traditional sports betting during the pandemic. It will be important to continue to monitor whether the increased marketing and uptake of esports is maintained. This observation could contribute to whether this product might be best considered a perfect substitute or an imperfect substitute where consumer surplus is lost through the switch.

Advertising and increased vulnerability

In Australia and internationally, evidence of a decline in mental health due to lockdowns is emerging (Newby, O'Moore, Tang, Christensen, & Faasse, 2020; Niedzwiedz et al., 2021). This increased proportion of the population experiencing mental health problems during and following the lockdowns represents an additional risk factor for harm from gambling (Dowling et al., 2019). Research has shown that exposure to wagering marketing increases betting activity, especially amongst vulnerable bettors, including problem gamblers and children (Hing, Russell, Rockloff, et al., 2018; Newall et al., 2019). The change in marketing content by gambling operators during lockdown, as shown by the current study, and the accompanying shift in the types of bets made by consumers (Flutter Entertainment, 2020) reinforces this link between wagering advertising exposure and betting activity and raises the concern that more people may have been more vulnerable to this marketing during this time. Further research into relapse during lockdown is warranted, to examine how vulnerable people may react to future instances of upheaval. It is also important to understand how people may react to sudden changes in gambling advertising, for example after changes in regulations.

In addition, the proliferation of online and social media marketing by gambling operators during lockdown was happening in an environment where the promotion of responsible gambling messages was found to be minimal. There are a number of regulations and restrictions placed on gambling operators with regard to advertising on TV and radio and other mass media in many jurisdictions, including Australia, such as requirements around responsible gambling messaging. It is important to monitor compliance with these regulations, particularly during times of change.

Future research could examine the link between advertising and promotions during this period and gambling harm. Further, given the ease of access to social media marketing to minors, there is a valid argument for considering additional restrictions on how operators may use social media.

Early evidence reveals that the closure of land-based venues resulted, at least in part, in an increase in online gambling during the initial COVID-19 lockdown (Price, 2022). This increase was partly from people transitioning from venue-based gambling, such as gambling on EGMs, to online gambling and an increase in gambling by high-risk gamblers (Price, 2022). Online gambling has been associated with a higher risk of experiencing harm from gambling (Effertz, Bischof, Rumpf, Meyer, & John, 2018; Zhang et al., 2018). However, people who gamble online often gamble on a plethora of different gambling activities (Hing et al., 2022). Therefore, it may be this overall immersion in gambling that is the real risk factor, rather than online gambling, per se. Nevertheless, online gambling represents a risky platform for many consumers and the dramatic increases in online advertising seen in the current study, in the context of the COVID-19 lockdown, may contribute to increasing harm to the community from gambling.

Limitations

This study focussed on four of the largest domestic wagering operators in Australia, due to practical and budget constraints. The lockdown period used in this study does not include subsequent restrictions and lockdowns in Victoria that occurred due to subsequent COVID waves. Nonetheless, online betting was available to Victorians during these subsequent waves and land-based sports events were still being held under COVID-safe conditions. Twitter data is a relatively narrow view of advertising. However, data from other sources could not be captured due to budget constraints, limitations on data collection (e.g., Facebook, Instagram), or delays in data availability (e.g., television monitoring data). Further, such sources do not necessarily feature the granularity of data required for this study. Finally, esports and table tennis are combined into a single category in this study, despite their disparate natures and likely appeal to different audiences. This was done because they were the two main sports that persisted despite the cessation of almost all other sports and because advertising for these two sports increased in prominence.

CONCLUSION

The current study examined how marketing changed in response to COVID-19 restrictions on sports and on in-venue gambling. Gambling operators quickly adapted their advertising to suit the changes in gambling availability, with increased focus on product types unaffected by COVID-19 and novelty products. The findings provide useful insights into the agility of wagering advertising. Perhaps more importantly, this switch in advertising accompanied a switch



in usage towards available products, such as racing, that compensated for losses in other areas (i.e., most sports). Thus, there appears to be a strong substitution effect in racing and wagering products, where lack of availability in one product category may be made up for with other products. This has important implications for regulation and reform as restrictions or reforms that alter the availability or attractiveness of one product category will likely only cause substitution to another. Consequently, it is important to consider any future regulation and reform holistically in consideration of all products on offer. The study also shows that, despite large changes in the volume of advertising, there is minimal associated responsible gambling messaging. Further, the study is a useful baseline for future research to monitor subsequent changes in wagering advertising as COVID restrictions continue to ease. It also provides a method for studying online wagering advertising more broadly, moving away from the focus on gambling advertising in traditional media.

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Authors' contribution: AR led the overall project. AR and NH designed the study. AR collected the data and wrote the first draft of the method, results and discussion. AR and MB analysed the data. NH wrote the first draft of the introduction. GB, HT and MR provided intellectual contribution to subsequent drafts of the introduction and discussion, and edited the manuscript as a whole. All authors read and commented on the final manuscript and approved it for submission.

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