Unhealthy sponsorship in sport: a case study of the AFL

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port settings are universally acknowledged as providing an opportunity to promote and encourage healthy behaviour.¹ Tobacco and alcohol companies have faced ongoing criticism from the public health sector about the unhealthy nature of their products and their decisions to sponsor sport. In Australia, during the late 1980s and early 1990s, a number of court cases led to the development of the federal Tobacco Advertising Prohibition Act 1992, which required the phasing out of sponsorship of sport by tobacco companies, with limited exemptions.² Since this time, a new range of unhealthy products has been promoted through sport sponsorship. Companies providing alcoholic beverages; food products that are low in fibre and high in saturated fat, sugar and/or salt; and sports betting are now common sponsors of sport.3,4,5

The World Health Organization (WHO) has made recommendations for the marketing of food and non-alcoholic beverages to children, which includes marketing in children's settings.⁶There is strong evidence to suggest that children, especially those under eight years old, are extremely susceptible to marketing because they do not have the experience or cognitive skills to critically evaluate the messages being promoted.⁷

Overweight and obesity affects almost twothirds of Australian adults and one-quarter of Australian children.⁸ Australia's dietary guidelines recommend limiting consumption of foods high in saturated fat, sugar and salt (discretionary choices)⁹ but, despite public health recommendations, these foods make up more than one-third of the Australian diet.¹⁰ The Australian Dietary Guidelines

Abstract

Objective: To analyse the presence of unhealthy sponsorship on Australian Football League (AFL) club websites and player uniforms.

Methods: An audit of AFL club websites and playing uniforms identified sponsors and used a traffic light system to categorise sponsors. Food and beverage sponsors were classified as Red, Amber or Green using nutrient criteria. Alcohol sponsors were classified as Red. Gambling sponsors were classified as Red (wagering companies and casinos) or Amber (venues that provide gambling and other services). Sponsors promoting healthy lifestyle concepts were classified as Green. All other sponsors were classified as Other.

Results: Unhealthy sponsorship on AFL club websites and player uniforms is extensive. All 18 clubs had at least one Red sponsor. Fifteen clubs were sponsored by alcohol companies. Five clubs featured Red sponsor logos on their playing uniforms. Twelve clubs had Green sponsors. No clubs displayed Green sponsors on their playing uniforms.

Conclusions: This study identified that unhealthy sponsorship is prevalent on AFL club websites and playing uniforms.

Implications for public health: Sponsorship offers companies an avenue to expose children and young people to their brand, encouraging a connection with that brand. The AFL could reinforce healthy lifestyle choices by shifting the focus away from the visual presence of unhealthy sponsorship, while taking steps to ensure that clubs remain commercially viable. Policy makers are encouraged to consider innovative health promotion strategies and work with sporting clubs and codes to ensure healthy messages are prominent.

Key words: sponsorship, sport, junk food, alcohol, marketing

Summary lists examples of discretionary choices, which include burgers, fried foods, chips, sugar-sweetened soft drinks, sports and energy drinks and alcoholic drinks.⁹ There is evidence that reduced consumption of sugar-sweetened beverages (SSBs) can lead to lower rates of death and disability in adults in high, middle and low-income countries,¹¹ and that reducing overall consumption of added sugars may result in significant public health and economic benefits.¹² It has been suggested that fast food and sugary drink sponsorship of sport represents a direct attack on worldwide efforts to reduce consumption of unhealthy food and drink and promote physical activity to tackle increasing obesity rates.¹³

There is a well-established correlation between risky levels of alcohol consumption and poor health.¹⁴ In Australia, 15 deaths and 430 hospitalisations are attributable to alcohol every day.¹⁵ More than one in six (17.1%) Australians aged 14 years or older drank alcohol in 2016 at a level that put them at risk of an alcohol-related disease or injury over their lifetime.¹⁶ Long-term studies have shown that 12-year-olds who are highly exposed to alcohol advertising are 50% more likely to start drinking when they are 13, compared to those who are only slightly exposed.¹⁶ Studies

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consistently demonstrate that exposure to alcohol advertising has a direct correlation with the likelihood that adolescents will start to drink alcohol and, if they already drink alcohol, their drinking will increase with such exposure.^{17,18,19} Sponsorship of sporting clubs by alcohol companies has been shown to create an association between the sponsor and the promotion of community health and wellbeing.²⁰ A study of 10–12-year-olds found there was a high awareness of alcohol products and brands advertised during a sporting broadcast, and that children were aware of celebrity endorsement of products and associated them with a preference for these products.²¹ Alcohol advertisements and exposure to alcohol sponsorship is just as likely to be seen by children as adults, because there is no restriction on alcohol advertising and sponsorship exposure during live sporting broadcasts on weekends or public holidays - times when children are most likely to be watching.22

Gambling also poses a significant public health issue.^{23,24} During 2014/15, figures suggest that Australian adults spent on average \$1,241 per person on gambling each year, and that the main increases in gambling expenditure had been on online sports betting.²⁵ Studies have shown a strong correlation between gambling/gambling intention and response to gambling sponsorship, and that exposure to gambling promotions during televised sport may encourage gambling intentions, among both adults and children.^{26,27} In 2014, a study found that a greater intention to bet on sports and to gamble was associated with having more positive attitudes towards gambling sponsors, to seeing the promotion of gambling during televised sport, and to the promotional techniques used. More than half of adults and two-fifths of adolescents could also recall at least one gambling brand after watching televised sport.²⁸ A study exploring the increasing marketing of the sports and race betting industry including the impact of this marketing on gambling behaviour found that adolescents are exposed to higher levels of sports betting advertising than adults.²⁹ It has also been found that children and adults identified seeing sports wagering promotions in similar environments (most commonly on television and at stadiums) and that three-quarters of children (75.0%) and the majority of adults (90.0%) perceived that sports wagering was becoming a normal part of sport. 30

Children associate sporting teams with the products and companies that sponsor the team. When a sponsorship logo appears on the players' uniforms, three-quarters of children aged 5–12 can correctly identify at least one shirt sponsor.³¹

AFL is arguably the most popular spectator sport in Australia. A total of 7.83 million Australians (41.0%) watch the AFL almost always or occasionally on TV.³² In 2016, AFL home and away games were attended by 6,872,005 people.³³ The average national television audience for the 2016 AFL Grand Final was 4,121,368, which was the most watched program of any kind on Australian television in 2016.³⁴

A few studies have examined the unhealthy sponsorship of Australian sport governing bodies, community sporting clubs and children's sport.³⁵ No studies have analysed the nature of sponsorship of the AFL clubs, and the extent of junk food, alcohol or gambling sponsors within the AFL. The aim of this research was therefore to determine the prevalence of unhealthy sponsorship within AFL clubs (websites and player uniforms), given the reach that sponsorship messages have into the general community.

Methods

Identification of sponsors

AFL clubs were identified from the official AFL website (n=18) and one reviewer subsequently identified each of the 18 clubs' official websites. One reviewer examined all pages of each identified club website between March and April 2017 for evidence of sponsorship. 'Evidence of sponsorship' is defined as the naming of the sponsor on the club website as an official club partner. One reviewer also assessed the sponsors displayed on the 2017 playing uniforms. A second reviewer cross-checked the sponsors that were listed on the club websites, and the sponsors that appeared on the playing uniforms. Sponsors on the playing uniforms were identified by viewing the official playing uniforms on the club online stores and through desktop Google searches of images of the players. Community partners and suppliers were excluded. Women's team sponsors were also excluded as the AFL Women's League was in its inaugural year in 2017 and only eight out of the 18 AFL clubs entered a women's team in the newly formed competition. Television advertising during AFL game broadcasts was excluded, as these

sponsorship arrangements are between the television broadcasters and the advertisers. In-ground signage was excluded as these sponsorship and advertising arrangements are between the operators of the stadium and the advertisers, and not the AFL clubs. Sponsorship of banners that the players run through each week was also excluded as banner sponsorship is subject to change. The evidence of sponsorship on social media platforms and mobile applications was excluded.

Identification of sponsor products

After identifying each sponsor from club websites and playing uniforms, one reviewer identified each sponsor's Australian website between March and April 2017 and documented every food and beverage product manufactured by that sponsor available for purchase in Australia. Alcohol, gambling and other sponsors were also identified. A second reviewer cross-checked the sponsor websites and the food and beverage products manufactured by that sponsor that had been identified by the first reviewer. For some sponsor products, limited or no nutrition information was available: where this was the case the sponsor was classified as Other. If a sponsor was a restaurant or cafe that did not include nutritional information online and/ or was geographically inaccessible to the researchers, that sponsor was also classified as Other.

Nutritional assessment of food and beverage products

Following the identification of all food and beverage products, each food and beverage product was classified as either Red, Amber, Green or Other by analysing the nutritional information provided on sponsor websites. Where no nutritional information was available, the packaged food was examined in store. Two reviewers attended a supermarket to locate the packaged food and use the nutritional criteria found on the packaged food. The Cancer Council WA and Heart Foundation WA 'Live Lighter Packaged Food Guide' was used to classify packaged foods and beverages.³⁶ Hot meals and foods from fast food restaurants were classified using the Healthy Options Policy 'Classification of Green, Amber and Red Food and Drinks, developed by the Western Australian Health Department.³⁷ The systems were chosen for this study as they are both based on the

Table 1: Classification of sponsors.				
Red	Amber	Green	Other	
Food and beverage manufacturers with over 50% of products high in saturated fat, sugar and/or salt and low in fibre	Food and beverage manufacturers with over 50% of products moderate in saturated fat, sugar and/or salt and low in fibre, but which may provide some nutritional benefit	Food and beverage manufacturers with over 50% of products low in saturated fat, sugar and/or salt and high in fibre	Cafes/restaurants where nutrition information was not available	
Gambling companies including wagering companies and specific casino sponsorship	Gambling companies includes venues which provide other services	Companies which actively promote healthy lifestyle concepts.	Banks, car companies, insurance companies etc.	
Alcohol companies including retailers (on-licensed premises (e.g. pubs, clubs), off-licensed premises (e.g. bottle shops) and manufacturers (e.g. brewers, wineries)			Supermarkets	

Australian Dietary Guidelines, which is the best available scientific evidence to provide information to ensure that Australians can make healthy choices. Food or beverages classified as Red were found to have high levels of saturated fat, sugar and/or salt and/or low levels of fibre. Foods and beverages classified as Amber were found to have moderate levels of saturated fat, sugar and/or salt and/or low levels of fibre but could also provide some nutritional benefit. Foods and beverages classified as Green were low in saturated fat, sugar and sodium, and high in fibre.

Categorisation of sponsors

Each sponsor was classified as either Red, Amber, Green or Other according to the classification in Table 1.

Rating (or scoring) the AFL clubs

After identifying each sponsor and classifying in accordance with Table 1, each was given a score according to Table 2.

For example, a sponsor categorised as Red would receive one point from the club website. If the logo of that sponsor also appeared on the playing uniform, it would receive an additional point. In that instance, the total points awarded would be two. The allocation of additional points for logos appearing on the playing uniform was to reflect the prominent exposure of the logo on the playing uniform. The points were then allocated against the AFL club linked with that sponsor. The points allocated to each AFL club were tallied in the form of a 'Sponsorship Ladder' (Table 3) with the team scoring the highest number of points (the team with the most unhealthy sponsors) being placed at the top of the Sponsorship Ladder, and the team with the lowest number of points (the team with the least unhealthy sponsors) being placed at the bottom of the Sponsorship Ladder.

Ethics approval

The Curtin University Human Research Ethics Office (Approval HRE2017-0176) provided ethical approval for this study.

Results

Prevalence of unhealthy sponsorship

Unhealthy sponsorship is prevalent in the AFL. All AFL clubs had at least one Red sponsor. Five teams (28%) had Red sponsors on their playing uniforms. Eleven teams (61%) had Amber sponsors, with one team (5.5%)

Table 3: AFL Sponsorship ladder 2017.										
Rank	Club		Spor	isors			Uni	form		Points
		R	Α	G	0	R	Α	G	0	Total
1	Brisbane Lions	5	3	0	23	1	1	0	3	8
2	West Coast Eagles	6	3	0	15	0	0	0	3	7.5
3	Fremantle	6	2	1	25	0	0	0	4	7
4	Adelaide Crows	5	2	0	26	0	0	0	3	6
5	Hawthorn	4	0	1	18	0	0	0	4	4
5	Geelong Cats	4	0	1	26	0	0	0	3	4
5	Port Adelaide	3	0	0	19	1	0	0	3	4
6	St Kilda	2	1	1	15	1	0	0	3	3.5
6	Western Bulldogs	2	1	2	20	1	0	0	2	3.5
7	Sydney Swans	3	0	0	23	0	0	0	4	3
7	North Melbourne	3	0	3	15	0	0	0	3	3
7	Carlton	2	0	1	16	1	0	0	4	3
7	Collingwood	2	2	1	20	0	0	0	3	3
8	Gold Coast Suns	2	1	1	8	0	0	0	3	2.5
8	Essendon	2	1	1	21	0	0	0	3	2.5
8	Melbourne	2	1	3	14	0	0	0	3	2.5
9	GWS Giants	2	0	0	36	0	0	0	4	2
10	Richmond	1	1	3	20	0	0	0	4	1.5

Notes:

Sponsors: Total number of team sponsors listed on website.

Uniform: Total number of sponsors displayed on teams' uniforms.

R: Red sponsors [Companies selling foods high in saturated fat, sugar and/or salt, low in fibre; alcohol; and gambling*]

* Includes wagering companies and specific casino sponsorship e.g. The Star.

A: Amber sponsors [Companies selling foods moderate in saturated fat, sugar and/or salt, low in fibre; and gambling**. The foods may provide some nutritional benefits.]*

*Includes venues that provide other services e.g. Crown Perth.

G: Green sponsors [e.g. Live Lighter, Victorian Responsible Gambling Foundation].

0: Other sponsors [e.a. banks, universities, health insurance, and motorina].

Total: Total Red sponsors (1 point per sponsor); total Amber sponsors (0.5 points per sponsor).

Table 2. Fullts allocation.				
	General	Uniform	Maximum	
	sponsor	sponsor	points possible	
			per sponsor	
Red	1	1	2	
Amber	0.5	0.5	1	
Green	0	0	0	

Other

also having an Amber sponsor displayed on its uniform. Twelve teams (66.1%) had sponsors categorised as Green. As indicated at Table 1, examples of Green sponsors included food and beverage manufacturers with more than 50% of products low in saturated fat, sugar and/or salt and high in fibre (such as a supplier of bottled water and a seafood wholesaler) and companies that actively promote healthy lifestyle concepts such as the Victorian Responsible Gambling Foundation. No teams had sponsors categorised as Green displayed on their playing uniforms. All teams had sponsors characterised as Other, and all teams had a logo from a sponsor characterised as Other displayed on their uniform.

Table 3 displays the Results in the form of a Sponsorship Ladder, as detailed in the Methods section.

Unhealthy food and beverage was the most common category of Red sponsorship (46%), followed by alcohol (43%), and gambling (11%). Fifteen teams (83%) were sponsored by alcohol companies. Six teams (3%) were sponsored by gambling companies including wagering companies and specific casino sponsorship. Table 4 shows the breakdown of Red sponsorship by commodity.

In total, 56 out of 453 sponsors (12%) were Red (unhealthy). An additional 18 (4%) of sponsors were Amber (moderately healthy), and only 4% were Green (healthy). For 13 out of the 18 AFL clubs (72%), 10% or more of their sponsors were Red (unhealthy).

Coca-Cola had the highest number of sponsorship partnerships, sponsoring 13 out of 18 AFL clubs (72%). Beer producer Carlton Draught was the most common alcohol sponsor, partnering with six out of 18 AFL clubs (33%). Table 5 shows the top five sponsorship companies by number of clubs sponsored.

Discussion

This study analysed the presence of unhealthy sponsorship in each club in the AFL. Australian Rules is unique on the world stage with no other sport in the world being referred to by the name of its national league, which is indicative of the influence the sport has in Australia, from the elite to the community level. On a global scale, by average attendance per game, the AFL is the fourth-largest league in the world, with 33,200 fans attending each match.³⁸ The AFL continues to garner massive leverage in television rights and has its own 24-hour Fox Footy channel. In short, the AFL has a massive reach into the general community and, consequently, the sponsors have high exposure. The value of sport sponsorship in Australia is estimated at US\$735 million (AU\$956 million at the time of publication) and the AFL is the largest recipient of

Table 4: Red sponsors by category.			
Red sponsors by category			
Unhealthy food and beverages (Food and beverage manufacturers with over 50% of products high in saturated fat, sugar and/or salt and low in fibre)	26		
Gambling companies including wagering companies and specific casino sponsorship	6		
Alcohol including retailers (on-licensed premises (eg pubs, clubs), off-licensed premises (eg bottle shops) and manufacturers (eg brewers, wineries)	24		
Total Red	56		
Total sponsors	453		

corporate sponsorship, with US\$145 million (AU\$188 million at the time of publication) spent on the AFL annually.³⁹

The popularity of the AFL provides clubs with the opportunity to promote Green or healthy products, and it is positive to note that 12 of the 18 clubs (66.1%) have at least one Green sponsor, although none have a Green sponsor logo displayed on their uniform. All clubs also have multiple Other sponsors, indicating that it is possible to seek alternative sources of sponsorship, although it is unclear - due to the private nature of sponsorship contracts - whether the value of Other sponsorship arrangements is as financially lucrative for clubs as Red sponsorships. Notably, the GWS Giants, have 36 Other sponsors and only two Red sponsors, which may be indicative of the lower value of Other sponsorship arrangements. Despite the evidence of Green and Other sponsors, there is a notable number of Red sponsors and, as reported earlier, all 18 clubs have at least one Red sponsor and 83% of clubs are sponsored by alcohol companies. Much of the debate around alcohol advertising in sport concerns the possible effects on children and young people. A systematic review has identified positive associations between exposure to alcohol sports sponsorship and increased levels of consumption, including risky drinking among adult sportspeople and schoolchildren.⁴⁰ Given these findings and the fact that alcohol sports sponsorship is still a legal activity in Australia, it is not surprising to find that a high percentage of AFL clubs are sponsored by alcohol companies. With the current loophole in the Commercial Television Industry Code of Practice that allows beer, wine and spirits to be advertised during sports programs before 8.30pm on weekends and public holidays, which are peak times for childhood viewing, it is clear that public health policymakers need to continue to advocate for not only the phasing out of alcohol advertising during live sports but

Table 5: Top 5 Red sponsors by number of AFL clubs sponsored.		
Name of sponsor company	Number of AFL clubs sponsored (as found on club websites and/or player uniforms)	
Coca-Cola	13	
Carlton Draught	6	
McDonalds	5	
Four n Twenty	2	
Wolf Blass Wines	2	

also the phasing out of alcohol sponsorship of sport.

This study indicates that many AFL clubs have business partnerships with gambling companies. Specifically, this study illustrated that six of the 18 AFL clubs (33%) are sponsored by wagering companies and specific casino sponsorship, and two more clubs are sponsored by gambling venues that also provide other services. This is normalising gambling as part of the AFL experience. Even more concerning is the finding that sports betting advertising associated with sport is having a resonance with sports spectators under the age of 18.41 Given the 2018 Australian Government ban that will restrict gambling advertising between 5.00am and 8.30pm on commercial free-to-air TV. radio and subscription TV, it is important to now focus on the phasing out of gambling sponsors among Australian sporting codes including the AFL.42

Sixteen AFL clubs (88%) are sponsored by unhealthy food and beverage companies. Research has identified that children are a major target market for fast food advertising as they influence their parents' spending, have their own money to spend and have the potential to become brand-loyal.⁴³ This has been replicated within the sporting sector, where interviews found that 10-14-year-olds thought the food and drink companies that sponsored their sporting club and favourite team were "cool" and they would like to return the favour to these sponsors by buying their products.⁴⁴ With such high exposure to fast food brands within the AFL, the concern is that the more children are engaged in, or watch the sport, the greater the influence that junk food sponsorship will have on young people. Australia is a signatory to the World Health Organization's recommendation that children's settings should be free of unhealthy food promotions and branding - including through sport – because of the impact on their diet, which is a risk factor for overweight and obesity. The evidence is clear. It is time for Australia to act to phase out all unhealthy sponsorship of sport.

This study indicates that, like other sporting codes in Australia and New Zealand, there is strong evidence of reliance upon sponsors associated with unhealthy commodities on AFL club websites and playing uniforms.^{45,46} Previous studies have noted that athletes who play team sports are more likely than individual athletes to accept unhealthy sponsorship, with the

authors of previous studies encouraging players to promote healthy behaviours by not accepting sponsorships with unhealthy brands.⁴⁷ Whether this suggestion is realistic, in the climate of AFL players competing for selection by AFL clubs with existing sponsorship arrangements, is questionable. The strategy adopted by the Western Australian Government-funded health promotion foundation, Healthway, is one that could be replicated by other state governments. Originally funded by the proceeds of tobacco tax, Healthway's sponsorship strategy has led to the Perth Wildcats basketball team featuring health promoting messages and branding on players uniforms, ground signage and onfield, in a three-year sponsorship deal worth \$1.5 million.48

This study is the first of its kind to highlight the prevalence of unhealthy sponsorship on AFL club websites and playing uniforms. While other studies have examined the presence of unhealthy commodities in Australian sporting codes and governing bodies, this study examined the presence of unhealthy sponsorship in Australia's most popular - and arguably most influential - sport. These results are reflective of the sponsorship of many sporting codes in Australia and, given the global nature of the food, alcohol and gambling industries, may also be relevant globally. When considering potential solutions, the AFL is encouraged to reinforce healthy lifestyle choices by shifting the focus away from the visual presence of unhealthy sponsorship, while taking steps to ensure that sporting clubs remain commercially viable. At the very least, clubs should remove the visibility of the unhealthy sponsor logos from their uniforms. Policy makers are encouraged to consider more innovative health promotion strategies, such as the buying out of unhealthy sponsors, and to work with clubs directly to review their sponsorship criteria and aims. Further research in the form of interviews with AFL clubs is planned and needed to gain a better understanding of the reasons clubs partner with unhealthy sponsors, whether this be for commercial or financial reasons. Understanding whether health promotion interventions at club and policy level would lead to sponsorship arrangements with healthier sponsors is also warranted. A limitation was that (as noted in the Methods section) for some sponsor products, limited or no nutrition information was available and where this

occurred the sponsor was classified as Other. If a sponsor was a restaurant or cafe that did not include nutritional information online and/or was geographically inaccessible to the researchers, that sponsor was also classified as Other, meaning that there is a possibility that some sponsor products, restaurants and cafes that may have been categorised Red, Amber or Green – had nutritional analysis been carried out – were categorised as Other.

Conclusion

The present study was the first in Australia to analyse the presence of unhealthy sponsorship in each AFL club website and on playing uniforms. Overall, the findings have identified that unhealthy sponsorship is strongly associated with AFL club websites and playing uniforms. Given the popularity and reach of this sport, it is suggested that a comprehensive and coordinated approach to advocate for the removal of unhealthy sponsors from sport, using similar tactics to those that removed tobacco sponsorship from sport, is needed within Australia.

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References

- 1. Watson W, Brunner R, Wellard L, Hughes, K. Sponsorship of junior sport development programs in Australia. *Aust N Z J Public Health*. 2016;40(4):326-8.
- Quit Victoria. Sponsorship [Internet]. In: Tobacco in Australia. Chapter 15.5. Melbourne (AUST): Cancer Council of Victoria; 2015 [cited 2017 Sept 1]. Available from: http://www.tobaccoinaustralia.org.au/fandi/ fandi/c15s5.htm
- Macniven R, Kelly B, King L. Unhealthy product sponsorship of Australian national and state sports organisations. *Health Promot J Austr.* 2015;26(1):52-6.
- Bragg M, Miller A, Roberto C, Sam R, Sarda V, Harris J, et a. Sports sponsorships of food and non-alcoholic beverages. *Pediatrics*. 2018;141(4):1-11.
- Carter M, Signal L, Edwards R, Hoek J, Maher A. Food, fizzy, and football: Promoting unhealthy food and beverages through sport - a New Zealand case study. BMC Public Health. 2013;13(126):1-7.
- World Health Organization. Set of Recommendations on the Marketing of Foods and Non-alcoholic Beverages to Children. Geneva (CHE); WHO; 2010.
- Kunkel D, Wilcox B, Cantor J, Palmer E, Linn S, Sowrick P. Section: Psychological Issues in the Increasing Commercialization of Childhood [Internet]. In: *Report of the APA Taskforce on Advertising to Children*. Washington (DC): American Psychological Association; 2004 [cited 2017 Sept 1]. Available from: https://www.apa.org/pi/ families/resources/advertising-children.pdf
- Australian Institute of Health and Welfare. Australia's Health 2016 [Internet]. Canberra (AUST): AlHW; 2016 [cited 2017 Sept 1]. Australia's Health Series No.: 15. Available from: https://www.aihw.gov.au/reports/ australias-health/australias-health-2016/contents/ overview

- National Health and Medical Research Council. Eat for Health. Australian Dietary Guidelines [Internet]. Canberra (AUST): NHMRC; 2015 [cited 2017 Sept 1]. Available from: https://www.eatforhealth.gov.au/sites/default/ files/files/the_guidelines/n55_australian_dietary_ guidelines.pdf
- Australian Bureau of Statistics. 4364.0.55.007 -Australian Health Survey: Nutrition First Results – Food and Nutrients, 2011-12 [Internet]. Canberra (AUST): ABS; 2013 [cited 2017 Sept 1]. Available from: http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/ by%20Subject/4364.0.55.007~2011-12~Main%20 Features~Discretionary%20foods~700
- Singh G, Micha R, Khatibzadeh S, Lim S, Ezzati M. Estimated global, regional, and national disease burdens related to sugar-sweetened beverage consumption in 2010. *Circulation*. 2010;132(8):639-66.
- Vreman R, Goodell A, Rodriguez L, Porco T, Lustig R, Kahn J. Health and economic benefits of reducing sugar intake in the USA, including effects via non-alcoholic fatty liver disease: A microsimulation model. *BMJ Open*. 2017;7:e013543.
- 13. Herick de SáT. Can Coca Cola promote physical activity? Lancet. 2014;383(9934):2041.
- World Health Organization. Global Status Report on Alcohol and Health 2014 [Internet]. Geneva (CHE): WHO; 2014 [cited 2017 Sept 2]. Available from: http://www.who.int/substance_abuse/publications/ global_alcohol_report/en/
- Gao C, Ogeil R, Lloyd B. Alcohol's Burden of Disease in Australia [Internet]. Canberra (AUST): Eastern Health Turning Point; 2014 [cited 2017 Sept 1]. Available from: http://www.turningpoint.org.au/site/DefaultSite/ filesystem/documents/EMBARGO-FARE-Alcohol-Burden-of-disease-Report.pdf
- Australian Institute of Health and Welfare. National Drug Strategy Household Survey (NDSHS) 2016 Key Findings [Internet]. Canberra (AUST): AlHW; 2017 [cited 2017 Sept 1]. Available from: http://www.aihw.gov.au/ alcohol-and-other-drugs/data-sources/ndshs-2016/ key-findings/
- Collins R, Ellickson P, McCaffrey D, Hambarsoomians M. Early adolescent exposure to alcohol advertising and its relationship to underage drinking. *J Adolesc Health*. 2007;40(6):527-34.
- White V, Azar D, Faulkner A, Coomber K, Durkin S, Livingston M, et al. Adolescents' exposure to paid alcohol advertising on television and their alcohol use: Exploring associations during a 13 year period. Addiction. 2017;112(10):1742-51.
- Brown K. Association between alcohol sports sponsorship and consumption: A systematic review. *Alcohol Alcohol.* 2016;51(6):747-55.
- Roche A, Bywood P, Borlagdan J, Lunnay B, Freeman T, Laton L, et al. Young People and Alcohol: The Role of Cultural Influences [Intermet]. Adelaide (AUST): National Centre for Education and Training on Addiction; 2007 [cited 2017 Sept 1]. Available from: https://drinkwise. org.au/wp-content/uploads/Young_People_and_ Alcohol-NCETA_Flinders_University.pdf
- Jones S, Phillipson L, Barrie L, Jones S, Jernigan D. "Most men drink...especially when they play sports" – alcohol advertising during sporting broadcasts and the potential impact on child audiences. *JPublic Affairs*. 2010;10(1-2):59-73.
- Free TV Australia. 2015 Commercial Television Industry Code of Practice [Internet]. Melbourne (AUST): Australian Communications and Media Authority; 2015 [cited 2017 Sept 1]. Available from: https://www. acma.gov.au/-/media/Broadcasting-Investigations/ Regulation/pdf/Commercial_Television_Industry_ Code of Practice 2015-pdf.PDF?la=en
- Gainsbury S, Russell A, Hing N, Wood R, Lubman D, Blaszczynski A. The prevalence and determinants of problem gambling in Australia: Assessing the impact of interactive gambling and new technologies. *Psychol Addict Behav.* 2014;28(3):769-79.
- Browne M, Langham E, Rawat V, Greer N, Li E, Rose J, et al. Assessing Gambling-related Harm in Victoria: A Public Health Perspective [Internet]. Melbourne (AUST): Victorian Responsible Gambling Foundation; 2016 [cited 2017 Sept 1]. Available from: https:// www.responsiblegambling.vic.gov.au/__data/assets/ pdf_file/0007/28465/Browne_assessing_gamblingrelated_harm_in_Vic_Apr_2016-REPLACEMENT2.pdf

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- Queensland Government Statistician's Office. Australian Gambling Statistics 1989–90 to 2014–15 [Internet]. Report No. 39. Brisbane (AUST): State Government of Australia; 2016 [cited 2017 Sept 1]. Available from: http://www.qgso.qld.gov.au/products/reports/ausgambling-stats/aus-gambling-stats-32nd-edn.pdf
- Hing N, Vitartas P, Lamont, M. Gambling sponsorship of sport: An exploratory study of links with gambling attitudes and intentions. *Int Gambl Stud.* 2013;13: 281-301.
- Pitt H, Thomas S, Bestman A, Daube M, Derevensky J. Factors that influence children's gambling attitudes and consumption intentions: Lessons for gambling harm prevention research, policies and advocacy strategies. *Harm Reduct J.* 2017;14(1):11.
- Hing N, Vitartis P, Lamont M, Fink E. Adolescent exposure to gambling promotions during televised sport: An exploratory study of links with gambling intentions. *Int Gambl Stud.* 2014;14(3):374-93.
- 29. Sproston K, Hanley C, Brook K, Hing N, Gainsbury S. Marketing of Sports Betting and Racing [Internet]. Melbourne (AUST). Gambling Research Australia; 2015 [cited 2017 Sept 1]. Available from: https://www.gamblingresearch. org.au/sites/default/files/embridge_cache/ emshare/original/public/2016/09/74/bb765bd30/ gramarketingofsbandrb.pdf
- Pitt H, Thomas S, Bestman A, Stoneham M, Daube M. "It's just everywhere!"Children and parents discuss the marketing of sports wagering in Australia. Aust N Z J Public Health. 2016 [cited 2017 Sept 1];40(5):480-6.
- Pettigrew S, Rosenberg M, Ferguson R, Houghton S, Wood L. Game on: Do children absorb sports sponsorship messages? *Public Health Nutr.* 2013;16(12):2197-204.
- Roy Morgan Research. AFL is Clearly Australia's Most Watched Football Code, While V8 Supercars have the Local Edge over Formula 1. Finding No. 5488 [Internet]. Melbourne (AUST): Roy Morgan; 2014 [cited 2017 Sept 1]. Available from: http://www.roymorgan.com/ findings/5488-sports-viewing-on-tv-201403140213
- Footywire AFL Statistics. 2016 AFL Attendance [Internet]. Melbourne (AUST): Footywire; 2016 [cited 2017 Sept 1]. Available from: http://www.footywire.com/afl/footy/at tendances?year=2016&t=A&h=A&s=T

- Australian Football League. 2016 Annual Report [Internet]. Melbourne (AUST): AFL; 2017 [cited 2017 Sept 1]. Available from: http://s.afl.com.au/staticfile/ AFL%20Tenant/AFL/Files/Images/compressed_2016-AFL-Annual-Report%20(1).pdf
- Macniven R, Kelly B, King L. Unhealthy product sponsorship of Australian national and state sports organisations. *Health Promot J Austr.* 2015;26(1):52-6.
- Live Lighter. Live Lighter Wallet Card [Internet]. Perth (AUST): Cancer Council Western Australia; 2012 [cited 2017 Sept 1]. Available from: https://livelighter.com.au/ assets/resource/wallet-card/LiveLighter_Wallet_card_ REVISED_JUNE_13_FINAL.pdf
- Department of Health Western Australia. Healthy Options Policy – Classification of Green, Amber and Red Food and Drink [Internet]. Perth (AUST): State Government of Western Australia; 2015 [cited 2017 Sept 1]. Available from: http://ww2.health.wa.gov. au/~/media/Files/Corporate/general%20documents/ HealthyOptions/PDF/160420_Colour_Classification. ashx
- The Roar. Love It or Hate It, The AFL is Top Dog of Australian Sport [Internet]. Sydney (Australia): The Roar Sports Media; 2017 [cited 2017 Sept 1]. Available from: http:// www.theroar.com.au/2017/02/17/love-hate-afl-topdog-australian-sport/
- International Marketing Reports. Australia/New Zealand Sponsorship Worth \$880Million [Internet]. Buckfastleigh (UK): International Marketing Reports; 2017 [cited 2017 Sept 1]. Available from: http://www.imrpublications. com/newsdetails.aspx?nid=44
- Brown K. Association between alcohol sports sponsorship and consumption: A systematic review. *Alcohol Alcohol.* 2016;51(6):747-55.
- 41. Thomas S, Pitt H, Bestman A, Randle M, Daube M, Pettigrew S. Child and Parent Recall of Gambling Sponsorship in Australian Sport [Internet]. Melbourne (AUST). Victorian Responsible Gambling Foundation; 2016 [cited 2018 May 15]. Available from: https:// responsiblegambling.vic.gov.au/resources/ publications/child-and-parent-recall-of-gamblingsponsorship-in-australian-sport-67/

- 42. FreeTV Australia. New Gambling Advertising Rules during Live Sport [Internet]. Melbourne (AUST): Australian Communications and Media Authority; 2017 [cited 2018 May 15]. Available from: https://www.acma.gov. au/theacma/new-gambling-advertising-rules-duringlive-sports
- Scully M, Wakefield M, Niven P, Chapman K, Crawford D, Pratt I,et al. Association between food marketing exposure and adolescents' food choices and eating behaviors. *Appetite*. 2012;58(1):1-5.
- Kelly B, Baur L, Bauman A, King L, Chapman K, Smith B. "Food company sponsors are kind, generous and cool": (Mis)conceptions of junior sports players. Int J Behav Nutr Phys Act. 2011;8:95.
- Macniven R, Kelly B, King L. Unhealthy product sponsorship of Australian national and state sports organisations. *Health Promot J Austr.* 2015;26(1):52-6.
- Carter M, Signal L, Edwards R, Hoek J, Maher A. Food, fizzy, and football: Promoting unhealthy food and beverages through sport - a New Zealand case study. BMC Public Health. 2013;13(126):1-7.
- Macniven R, Kelly B, King L. Unhealthy product sponsorship of Australian national and state sports organisations. *Health Promot J Austr.* 2015;26(1):52-6.
- Department of the Premier and Cabinet. *Tobacco Control Act 1990. As at 02 May 2005 Version 01-b0-03* [Internet]. Perth (AUST): Government of Western Australia; 2006 [cited 2017 Sept 17]. Available from: https://www.slp.wa.gov.au/pco/prod/filestore. nsf/FileURL/mrdoc_2277.pdf/\$FILE/Tobacco%20 Control%20Act%201990%20-%20%5B01-b0-03%5D. pdf?OpenElement