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## **Chapter 11: Healthy Sport Consumption: Moving Away from Pies and Beer**

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### **Introduction**

Some Australian sports teams are struggling to encourage an increasingly sedentary population to attend live events, while the amount of sport available on television and via the internet is rising. For example, in 2016 Australia's Channel 7 (a free-to-air broadcaster) aired 3,000 hours of Olympic content across three mainstream television stations and live-streams through the 7 Olympics app. In June 2016, Fox Sports (a subscription television service owned by News Corp Australia) delivered round-the-clock coverage of Wimbledon and offered 12 sport channels, providing 24/7 sports coverage – with one channel dedicated to rugby league. Fans in Australia (and elsewhere) can now watch sport on television at any time of the day or night, and stream sport endlessly on their mobile devices. The struggle to encourage spectators to attend sporting venues is also compounded by negative factors such as poor quality, high priced food and beverages at the stadium. The high prices at some Australian venues have resulted in concerns that watching sport at stadiums may no longer be affordable for 'the common person', particularly those with families (Sutton, 2017).

A sport stadium is a specific environment that, like airports and concert venues, is physically sealed off from the outside world. It is a space where there is contestation over the

consumptive behaviour of sport fans. As an enclosed commercial domain, the economy of the sport stadium is designed around offering food and beverages in the context of a monopoly or oligopoly (depending on how many independent suppliers are contracted to service it). Within this environment, a small number of licensed suppliers rent the limited available space, and pass on the costs of supplying their necessarily limited offerings to sport fans. For those who wish to evade this control, as noted below they can either consume as much as possible before entering the stadium, or seek to smuggle in their own food and drink by evading the on-entry security measures involving searches not only for items that may endanger those attending (such as weapons), but also those that may ‘injure’ the profit margins of the suppliers of hospitality or the owners of intellectual property (in the case of so-called ambush marketing).

When attending a sports match, food and alcohol have been identified as the primary purchases of sports fans (Jones, 2002) but, as noted by Carter et al. (2012), there is little academic research into the actual offerings in stadiums and, therefore, discussions of food and drink within them remain largely anecdotal. Nevertheless, stadium food has a reputation for being of poor quality and is a point of frustration for many fans (see Figure 1). Although it is difficult to find a definition of healthy eating options, the World Health Organisation highlights those foods that are low in fat, sugars and cholesterol (WHO, 2015). The food available in stadiums has been typically high in saturated fat, sugars, and sodium and would, therefore, be conventionally considered to be unhealthy. Although the European Healthy Stadia Network has called for healthier food options in stadiums (as part of a settings-based approach to health promotion (Martin et al., 2016)), there is yet to be a significant change in many European (and Australian) venues. This chapter explores the role of food and drink in the Australian sporting experience and highlights issues surrounding the quality and price of stadium food and drink. It begins with a brief contextualisation of the modern Australian sporting experience and recent shifts towards the mediated consumption of sport (Rowe, 2004).

**Figure 1. Word cloud showing Australian rugby union fans’ responses to the questions: What aspects of the stadium do you consider to be particularly negative?**



Source: Keith Parry created from survey responses of Australian Rugby Union fans

### **Twenty-first-century sport consumption**

Humans have long engaged in physical activity or “practices resembling the individual or recreational or theatrical activities we now call ‘sport’” (Mandell, 1999, p. xi). Sport is used by many nations to define themselves (Hallinan, Hughson & Burke, 2007; Harris, 2008) and this is particularly the case in Australia, where sport is deeply embedded in the national culture (Rowe, 2013). It is a “key cultural institution in Australia” (McKay et al., 2001, p. 233) where matters of state are disrupted for one of two reasons – the first being issues of national or international importance, and the second updates on the top sporting events (Kell, 2000). Sport may be described as a ‘national necessity’, and it is certainly one of the principal amusements of Australians (Stewart, 1990). Stewart argues that playing and watching sport has been one of the key sources of meaning in the life of Australians for well over half a century, and many use it to escape the rigours and stresses of modern life (Booth, 2000).

Although over 17 million Australians are estimated to have participated in sport or physical activity between October 2015 and September 2016 (ASC, 2016), only 43 per cent of Australian adults met or exceeded the recommended levels of physical activity (see below for these guidelines) in 2011-12 (ABS, 2013). It is important, however, to distinguish between sport and physical activity. While physical activity can be defined as “any bodily movement produced by skeletal muscles that requires energy expenditure” (Caspersen, Powell &

Christenson, 1985, p. 126), organised sport is structured physical exercise, a particular form of culture that offers a unique platform for social interaction. Unfortunately, rates of sport participation are far lower than rates of sport spectatorship, both in terms of watching sport at a stadium or from home via the media. While the physical and mental health benefits of physical activity have been well-documented, participation in organised sport offers additional benefits, including improvements in health-related quality of life (Eime et al., 2010) and social and mental wellbeing (Eime et al., 2013). Yet, as Rowe (2017) notes:

A national survey [conducted in 2015] of 1,200 people found that 61.2% of respondents never play any kind of organised sport, 55.5% had watched sport live at a venue in the last year, and 84.9% had watched it live through the media.

Furthermore, the minority who participate in sport is not evenly spread across all social groups (Dollman & Lewis, 2010; Hardy et al., 2010; Spaaij, 2012), and is predominantly the domain of young, well-off, and well-educated males (Bennett, Emmison & Frow, 2001). Australian sport participation decreases with age (ABS, 2015) and is essentially dominated by those who live in cities, with those based in the country or suburbs, migrants, and Indigenous Australians having lower levels of participation. But, as noted above, Australians do watch live sport in large numbers.

Australians are obviously not alone in their love of watching sport. Fans have existed for as long as athletes have competed against each other (Osborne & Coombs, 2013), and watching sport is one of the most popular leisure choices in many societies. This popularity is reflected in the high average attendance figures at games in sports leagues such as the National Football League (NFL) (68,278), German Bundesliga (43,331), English Premier League (36,464), and Major League Baseball (30,517) (Barrett, 2016). At an individual club level, German Association Football team Borussia Dortmund averaged 80,451, NFL team the Dallas Cowboys 88,531, and NCAA American Football team Michigan 112,252 fans per match in 2012. Leading the way for Australian attendance is the Australian Football League (AFL) with an average of over 33,000 fans per game in 2012 (Sporting Intelligence, 2013), while the Big Bash League (cricket) is now the ninth most-watched sports league in the world, having an average crowd of 28,279 for the 2015/16 season (Barrett 2016). Attendances at other Australian sporting codes do not match these numbers and, for instance, the average figure in the National Rugby League (NRL) was only 16,423 in 2012 (Sporting

Intelligence, 2013). Falling attendance numbers in some sports (Stensholt, 2014) have been attributed to various factors, such as ticket prices and the proliferation of sport on television, as will now be discussed.

Sport has popular, global appeal that has been recognised by media companies, who have exploited this capacity. The founder of one such multinational media corporation, Rupert Murdoch, stressed that his media conglomerate planned to “use sport as a battering ram and a lead offering in all our pay television operations” (quoted in Cashmore, 2005, p. 365). People from countries around the world are now able to tune in via satellite broadcasts or the Internet to watch elite players performing in a small number of sports leagues (Maguire, 2001), creating a global market for both televised and live sporting events (Rookwood & Millward, 2011; Rowe, 2011). Mediated sport has now grown to such an extent that, while attending sporting events is a common practice among adults, consumers from Europe, North America, and Australia are now much more likely to watch it on television than to attend a sports event in person (Parry, Jones & Wann, 2014). For example, over two-fifths of the Australian population watched televised sports such as Australian football, horse racing, and cricket in 2009-10 (ABS, 2010), while in North America 33 billion hours of sport were watched on television in 2013 (Nielsen, 2014). Sport dominates Australian television viewing habits, so much so that in 2015 the top five most watched programs on Australian television were live sport broadcasts (Rossi, 2016). As noted above, it is more common for Australians to watch sport on television than to participate in sport or physical activity. The prolonged periods of sedentary behaviour, and screen time in particular, that are now associated with modern sport consumption can have a detrimental impact on the health of fans (Grøntved & Hu, 2011).

With physical activity levels falling and sedentary time increasing, almost two in three Australians (63 per cent) are now overweight or obese, a rise of ten per cent from 1995 (AIHW, 2017). Australia is now in the ‘worst’ third of all Organisation for Economic Co-operation and Development (OECD) countries for adult obesity (WHO, 2017). In response to the ‘obesity epidemic’ and increasing rates of chronic lifestyle-related diseases, such as type 2 diabetes and cardiovascular disease, there is an increasing need to promote healthy lifestyle behaviour in innovative ways. To achieve health benefits, it is recommended that Australian adults accumulate at least 150 minutes of moderate-to-vigorous physical activity per week. In addition, adults are encouraged to limit the amount of time spent sitting

(particularly in prolonged bouts), and to be aware of the time spent in front of screens (Department of Health, 2014).

Watching sport has the potential positively to influence people's motivation to be physically active; yet evidence from the Sydney 2000 Olympics, the Vancouver 2010 Winter Olympics, and the London 2012 Olympics has revealed that this is not the case. While major sporting events such as the Olympic Games can provide an increased awareness of sport, physical activity and sport participation levels remain largely unchanged and it seems that sporting organisations are failing to capitalise on the true potential of sport and the 'spirit' of the Olympics (Bauman, Bellew & Craig, 2014; Craig & Bauman, 2014; Mahtani et al., 2013). This contradiction also opens up an important discussion around the social obligation of professional sporting bodies not only to use sport as a spectacle for television, but also to encourage fans to be more active as part of a healthier lifestyle (Anagnostopoulos, 2011; Inoue et al., 2015; Parnell et al., 2015). Such promotion should also be encouraged with regard to fans attending live sport, particularly through the provision of healthier eating options. The following section examines the food on offer to spectators when they attend professional sport matches.

### **Stadium food**

Although Ko et al. (2011) claim that some North American sports teams use high-quality food and drinks as key promotional tools, the food in sports venues is widely perceived to be of poor quality (Lee, Parrish & Kim, 2015). As far back as the mid-nineties of the last century, Wakefield and Sloan (1995) identified stadium food prices as an area of dissatisfaction for many sports fans, and the results from a number of more recent studies suggest that many sport attendees are still not satisfied with the offerings of stadium concession stalls (Ireland & Watkins, 2010; Martin & O'Neill, 2010; Parry, Hall & Baxter, 2017; Sukalakamala, Sukalakamala & Young, 2013). In the United Kingdom, fans have described the food on offer at sporting stadiums as "awful", "abysmal" and "atrocious" (Ireland & Watkins, 2010), while in Australia fans bemoan the "terrible food choices" that are perceived to be of poor quality (Parry, Hall & Baxter, 2017). Indeed, some fans report going "out of their way to not purchase food and beverage once inside the stadium...[even] 'loading up' on food and beverages before entering or sneaking such items into the stadium" (Martin & O'Neill, 2010, 14). Significantly, such 'loading up' practices are contrary to

healthy eating guidelines that encourage smaller, balanced, and regular meals (National Health and Medical Research Council, 2013).

Another way in which fans avoid purchasing stadium food is by bringing pre-prepared meals with them. However, as mentioned above, not all venues allow spectators to enter with their own food and drink (particularly if it is commercially prepared food), often prohibit opened drinks containers, or place restrictions on the size of food storage bags or coolers. While safety and licensing concerns may be behind some of these decisions, they serve to constrain the choices of fans. It should be noted that the issues discussed here are primarily pertinent for attendees in general admission, non-corporate seating. Spectators with access to hospitality facilities are more satisfied with stadium offerings than those in the 'cheap seats' (Lambrecht, Kaefer & Ramenofsky, 2009). Such 'corporate' fans are provided with better quality food, often without limits, and, as is particularly the case with corporate attendees at Japanese sumo wrestling tournaments, they are almost encouraged to eat excessive amounts (White, 2004). Such over indulgence is, again, contrary to healthy eating guidelines.

The standard food available in sporting stadiums has been compared to offerings found in fast food restaurants, which are traditionally high in carbohydrate, fat, sugar, and calories. Indeed, it is not uncommon to see big-brand fast food outlets in sporting venues and, during the London 2012 Games, the Olympic Park boasted four McDonald's restaurants, including the world's biggest McDonald's for the duration of the Games (Ho, 2012). The healthiness of food offerings, or lack thereof, at many stadiums is a key factor in the decision of some fans not to eat at stadiums and, according to a YouGov report, attendees at UK sports events believe that the food is unhealthy (Tobin, 2013). In Australia, where very few teams own the stadium in which they play, fans have also highlighted the lack of healthy options at venues, with some claiming that they cannot find healthy or fresh food at stadiums, and so do not eat there for this reason (Parry, Hall & Baxter, 2017). Indeed, observations by the authors at Australian stadiums reveal few fresh/healthy choices, with those that are available often unappealing in appearance and higher in price than less healthy alternatives. It should also be noted that stadium menus rarely provide nutrition information to allow spectators to make informed choices on their food. In Europe, stadiums are often found in less affluent areas, surrounded by low-quality housing whose inhabitants are more familiar with fast food-style options, and so it has been argued that fans in such venues either have poorer health literacy and are consequently unaware of the health implications of their food choices, or are

generally satisfied with lower quality, less healthy food offerings (Drygas et al., 2013). However, as mentioned previously, sport often constitutes a release from everyday life, and so is not bound by the same rules as other spheres of participants' lives. As a consequence, even when fans eat healthily at other times, some see attending sport as an excuse to eat unhealthily – it is a guilty treat, and so they get “into the spirit of it, and have a pie” (Ireland & Watkins, 2010, p. 684). In Australia, the meat pie is much more than an occasional treat; it is the nation's most popular fast-food choice, with 270 million sold each year (Barr, 2015). It is also a traditional accompaniment to sporting events, on a par with the hotdog in North America (Kovaricek 2010). In 2013, an iconic Australian venue, the Melbourne Cricket Ground (MCG), sold over 300,000 pies (Veenhuizen, 2014). Other popular fast food choices at the MCG include hot chips (600,000 servings in 2013), jam doughnuts (95,000), burgers (65,000) and pizzas (40,000) (Rolfe, 2014).

Contrastingly, in North America there is a longer history of healthy food choices in stadiums, with Roan (1997) reporting the availability of frozen yoghurt, teriyaki bowls and fresh fruit at Major League Baseball (MLB) stadiums in the 1990s. More recently, New York City's Icahn Stadium has offered wraps, grilled sandwiches, pizzas made on whole-wheat pitas, and low-fat organic parfaits (Fabricant, 2005). Again, North American venues appear to lead the way with food-based healthy stadium initiatives. It is estimated that approximately a dozen North American venues have installed either organic gardens or farms, growing food both to use in the catering outlets and for donation to the local community. For instance, Fenway Park (home of the Boston Red Sox baseball team) has a 5,000-square-foot rooftop farm and San Jose Earthquakes' Avaya Stadium has an 'edible garden' which includes fruit trees. Produce from these two initiatives are used by the stadiums' concession providers (Johnston, 2015). Meanwhile, the MLB's San Diego Padres combine healthy and competitively priced foods with in-game physical activity breaks for spectators (Yancey et al., 2009). Australian and European venues have much to learn from such initiatives.

Martin et al. (2008) identify that it is not just the quality of food that is a concern for fans; along with the choices available, they list the price of food as a point of dissatisfaction. Indeed, studies in Europe and Australia have found that fans are more concerned about the price of food than the availability of healthy options (Ireland & Watkins, 2010; Miles & Rines, 2004; Parry, Hall & Baxter, 2017; Sukalakamala, Sukalakamala & Young, 2013). As in many other countries, the food available in Australian stadiums has been criticised by fans



and the media for being overpriced (Tarbert, 2015), with rugby union fans describing the prices as “extreme” and “exorbitant” (Parry, Hall & Baxter, 2017). Similarly, British fans believe that venues “‘played on their loyalty’ [to a club] to ensure their custom, whatever the price” (Ireland & Watkins, 2010, p. 685). Fans expect to pay more for food and drink at venues (Martin & O'Neill, 2010), but they now demand ‘value for money’ and an improved customer experience. For the current prices, increasingly savvy fans want higher quality options. Because of the aforementioned globalisation and commercialisation of sport, fans are aware of overseas prices and make comparisons with local offerings. Australians baulk when they are asked to pay AU\$5 for a bottle of water or AU\$5 for a pie of poor quality when they are aware that other venues maintain much lower prices and offer a wider range of options. British fans similarly believe that they are now more sophisticated in their culinary tastes and are prepared to challenge the traditional fare offered in stadiums (Ireland & Watkins, 2010). If sporting organisations are to increase stadium attendances, they will need to provide a range of quality, healthy food options to meet the needs of twenty-first-century consumers.

In a bid to reduce spectator dissatisfaction and to enhance the in-stadium fan experience, a number of venues have innovations such as in-seat food delivery (Jones, 2015; PRNewswire, 2009), pre-ordering of food and drink to eliminate the need for queuing (IRFU, 2014; SCG, 2014), and smartphone apps that show the length of queues at concession stands (Parry, Hall & Baxter, 2017). The Western Sydney Wanderers, an Australian association football team, have even partnered with a leading cinema chain to provide a “Gold Class Experience” at matches, with private catering delivered to superior-quality seats for an additional fee (WSWanderers, 2017). Such moves add a degree of comfort and luxury to the fan experience, but they also increase the amount of time that stadium attendees are sedentary during games and the price of consumption. Significantly, evidence suggests that breaking up prolonged bouts of sedentary behaviour can be beneficial for metabolic health (Healy et al., 2008). Therefore, if stadiums are to play a role in health promotion, they may also need to introduce activities that encourage spectators to reduce their sedentary behaviour and engage in regular physical activity breaks – following the lead of teams such as the aforementioned San Diego Padres. Yet, it is not merely stadium food that may play a role in promoting a healthy lifestyle during the fan experience; stadium beverage offerings should also be considered.

## The price and quality of Drinks

While many of the world's stadiums offer a range of beverages for fans, watching sport is frequently associated with the consumption of alcohol. Sports fans are more likely to drink alcohol, engage in binge drinking, and report alcohol-related problems than nonfans (Nelson & Wechsler, 2003). It is young, male fans (in the 20- to 35-year-old age group) that are typically the heaviest consumers of alcohol at sports matches (Wolfe, Martinez & Scott, 1998). As Wenner and Jackson (2009) have recorded in their collection about the relationship between sport and beer across the world, there is a historically powerful connection between gendered identities and practices and beer consumption in sporting contexts. In Australia, beer is especially important to sport as a major sponsor and advertiser consistently producing images of active men and passively admiring women made available for the male gaze (McKay, Emmison & Mikosza, 2009; Rowe & Gilmour, 2009). The predominantly male fan subcultures routinely and often excessively consume alcohol (Palmer, 2010).

Sociologists Jim McKay et al. (2001) argue that a strong masculine inflexion heavily influences Australian sport and that, through sport, hegemonic forms of masculinity are asserted, promoted, and defended against alternative versions of masculinity and/or femininity. The ability to drink large volumes of alcohol symbolically represents this masculinity, and can be evidenced through spectator boasts over the number of beers that they will be able to drink, tales of their drunken exploits at previous games, and drunken fights (Parry, 2014). It is not only spectators that have turned drinking large volumes of beer into a national 'sport'. In 1994, Australian cricketer David Boon set a 'world record' by consuming 52 cans of beer during a flight from Sydney to London. Boon overtook another former cricketer, Rodney Marsh, who was the former holder of this record (McKay, Emmison & Mikosza, 2009). Such feats have been celebrated by Australian newspapers and as part of television advertising campaigns, positioning them as signifying heroic masculine ideals to be copied by fans.

This excessive masculinisation of Australian sport, allied with the consumption of large amounts of alcohol at sports matches, may be partially to blame for the large number of violent incidents observed at some Australian sporting venues. One of the country's oldest and premier sporting institutions, the Sydney Cricket and Sports Ground Trust, which runs

the Sydney Cricket Ground (SCG) and Allianz Stadium, reported twelve violent incidents in 2015, and as a result was classified as one of the most violent venues in New South Wales (NSW) – the first time that a sporting venue had been included on this list (Nicholls, 2015). This is not a new phenomenon – indeed, in *Crowd Violence in Australian Sport* (O’Hara, 1992), Cashman (1992, p. 1) notes that “Violence was very much part and parcel of sport in Sydney prior to 1850”, while Cashman (1984) and Lynch (1992) detail many disorderly incidents up to the late twentieth century at Australian cricket grounds. The causal role of alcohol in these events is, of course, in question, but the sport-masculinity-beer-violence nexus is powerful and enduring.

In NSW, the sale of alcohol in stadiums is permitted under liquor laws through an on-premises licence allowing alcohol to be sold on premises where the supply of alcohol is not the primary source of business. Repeated violent alcohol-related offences mean that venues face increasingly harsh penalties that impact on which types of alcohol can be served, when it can be served, and in what quantities. In the event that these incidents are not addressed by the venue, they can be closed or have their ability to sell alcohol withdrawn. To mitigate such measures, those serving alcohol in venues are required to complete a Responsible Service of Alcohol (RSA) training course, which teaches employees to recognise signs of insobriety and so to help prevent spectators from becoming intoxicated. In addition, the drinks served in general bar areas are often low-strength or non-alcoholic, and spectators may be limited to buying four alcoholic drinks at a time. Indeed, the SCG has addressed alcohol-related issues with the 1998 introduction of a “low alcohol beer policy for public concourse areas at international cricket fixtures”, and of dedicated non-alcohol seating areas (Sydney Cricket & Sports Ground Trust, 2017). It is instructive to note that many North American venues go further and allow no more than two alcoholic drinks per single sale, with Soldier Field in Chicago only selling one beer per purchase in their seating areas during NFL games (Lenk et al., 2010). However, such measures are largely enforced to limit public disorder rather than strictly for health promotion purposes.

Fans will often look for ways to circumvent the rules, regulations, and laws around alcohol consumption, and in 2004 the SCG Trust was required to take additional steps to outlaw ‘beer wenches’. These are usually attractive females employed by a group of male fans to accompany them to the sporting matches for the purpose of acting as personal waitresses. This sexist practice brings attention to the male group, and reinforces their sense of

hegemonic masculinity and its association with drinking at sporting matches. Because the beer wench serves the fans, their level of intoxication is never assessed by trained staff hired by the stadium and their vendors, thus breaching the venue’s liquor licence. Consequently, the practice was outlawed by the SCG Trust (and subsequently other venues), much to the frustration of some male fans.

As with stadium food, the price of drinks at venues has been criticised in the media (Murray, 2016; Sutton, 2017) and identified as a point of dissatisfaction for Australian fans (Parry, Hall & Baxter, 2017). Parry and Hughes (2016) compared stadium beer prices in various European, North American, and Australian leagues and revealed that fans typically pay more inside stadiums than in other venues (see Table 1). For example, the average price for a beer in Australian stadiums was found to be AU\$6.90, compared to an average of AU\$6.44 across the country. Again, the higher prices in stadiums are not designed to limit the consumption of alcohol as part of a strategy that encourages spectators towards healthier lifestyles, but are aiming to increase profit margins.

**Table 1. Average prices of beer in global leagues in 2016.**

<b>League/Nation</b>	<b>Local price</b>	<b>Price in AUS correct on 02/12/16</b>	<b>Average serving size</b>	<b>Standardised price AUS/100ml</b>
Bundesliga Germany	€ 3.85	5.59	478ml	1.17
Premier League England	£3.99	6.76	568ml	1.19
Various Australia	AU\$6.68	6.90	401ml	1.73
MLB USA	US\$5.90	7.91	15oz=443.603ml	1.78
NBA USA	US\$7.5	10.14	18.23oz = 539.223ml	1.88
NHL USA	US\$7.07	9.55	16oz=473.176ml	2.02
NFL USA	US\$7.38	9.99	16oz=473.176ml	2.11

It is not just the price of drinks that is a point of frustration for spectators. In Australia, the beer served in general admission sections is largely limited to low-mid strength options, as detailed above. This issue is being addressed to a degree by stadiums that have incorporated the growing boutique market of craft beers into their beverage offering (Parry & Hughes,

2016). Traditionally, craft brew options are focused more on the taste and overall drinking experience as opposed to the masculinist display associated with the consumption of more mainstream beers. It may, therefore, be that spectators focus on the quality of such products, rather than the quantity that they are able to consume.

Although NSW venues that serve alcohol are required to provide free drinking water as part of their on-premises licence, fans are encouraged to purchase bottled water (which also involves negative environmental consequences – Hawkins, Potter and Race, 2015) or fizzy drinks, with limited or no healthy alternatives, despite the sustained popularity of freshly squeezed or cold-pressed juices and ‘smoothies’. Consumption of sugar-sweetened beverages, including fizzy drinks and sports drinks, has gained attention in recent years, and in an attempt to combat the obesity epidemic there is a push for countries including Australia to introduce a tax on these types of beverage and on unhealthy food (Thow, Dans & Jan, 2014; Veerman et al., 2016). As mentioned above, the social obligation of stadiums and sporting organisations to promote a healthy lifestyle should be emphasised. If they are to do so, a holistic approach would be required, incorporating a healthy eating policy and commitments to measures such as at least one healthier food option within the stadium (Drygas et al., 2013). Yet, in a European study, few stadiums (only 16 out of 88) had such a policy, and only one-quarter employed a specially designated person to deal with food/healthy food issues. Although some venues have developed their own catering brands (Pierpoint, 2000), stadium food and drink is frequently outsourced to external contractors (Lee, Heere & Chung, 2013; Parry, Hall & Baxter, 2017), thereby significantly relinquishing control over the options made available to spectators (Drygas et al., 2013) and the quality and value for money that they can receive (Pierpoint, 2000). These external contractors are often large organisations which can negotiate advantageous deals with food providers (Ackerman, 1994), typically aiming to minimise their costs. Food and beverages that are cheap to produce, such as low-quality pies and other fast food options, generally provide greater returns than more expensive or more time intensive, healthier alternatives. However, the venue must still take responsibility for the food and beverage contracts that it signs, and can make the provision of reasonably-priced healthy offerings a key contractual condition.

As noted by Drygas et al. (2013), it is often fast food, fizzy drinks, alcohol, gambling, and (previously) tobacco companies that are the main sponsors of sport, particularly for mega events and venues, making sport stadiums a difficult setting for health promotion. Although

several studies have investigated the negative impact of (less healthy) food and beverage companies sponsoring sporting events (Carter et al., 2012; Garde & Rigby, 2012; Sherriff, Griffiths & Daube, 2010), there may be little appetite from venues and sports organisations to sever or loosen ties with their most profitable sponsors. Consequently, health-promoting policies regarding stadium food are difficult to introduce, and require a series of interventions involving both voluntary measures and binding regulations.

### **The way forward for stadium food and drink in Australia (and elsewhere)**

Parry, Hall and Baxter (2017) do provide a list of principles that healthier stadium food options should follow for them to be considered realistic alternatives to the current stadium fare. Their list includes: being at a similar or better price than existing offerings; being quick to order/be served and easy to eat using one hand; portion controlled; and to be an existing popular choice in the city where the stadium is located. They cite the Australian version of the Japanese Nori or sushi roll as an example for Sydney-based stadiums to adopt. In addition, Parry and Hughes (2016) make a series of suggestions for Australian stadiums to improve their beverage (and, in particular, their beer) offerings. They identify innovations such as: making locally brewed craft beer available; measures to keep beer colder for longer (and presumably reduce the need to drink it quickly); and the introduction of designated driver programs which provide nominated drivers with free soft drinks. To these points, a further set of recommendations for venues are now added:

- Accessible nutrition information, particularly nutrient values for stadium food should be included at the point of sale (as is now common on much packaged food). Recent legislation in several Australian states requires the energy content of meals and menu items to be shown on menu boards in restaurants along with information on the average daily adult energy intake. While it has been found that energy menu labelling reduces the energy content of purchases, Wellard et al. (2015), in their study of nutrition information in fast food outlets, argue that more detailed information is required for customers to be able to make informed decisions on the nutritional value of food at stadiums;
- It is also recommended that stadiums publish menus online (with prices and nutrition information) to allow spectators to make reasonable decisions on their food and beverage options in advance of their arrival at venues;

- Venues should provide healthier beverage options, capitalising on the rising popularity of squeezed/pressed juices and smoothies;
- More venues should include activities that encourage spectators to be physically active at games;
- At a wider level, sporting organisations should also consider the ethical issues arising from partnering with companies associated with unhealthy lifestyle choices (such as fast food, fizzy drinks, alcohol, and gambling companies);
- Finally, stadiums in Australia and Europe should consider following the examples of North American venues and install organic gardens to supply healthy produce for their catering outlets.

Sporting stadiums offer a unique opportunity to promote healthy lifestyle choices. The above recommendations reflect public health messages, current research evidence, and fan perceptions. Sports organisations and venues need to take them into account if they are to invest in the health and wellbeing of their fans and wider community. After all, given that sporting activity is widely celebrated and often publicly subsidised as health affirming, attending a stadium to watch it being performed should not have an unduly unhealthy impact on the bodies and the bank accounts of co-present spectators.

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