Healthy Food Systems Australia

Select Committee on Supermarket Prices
PO Box 6100
Parliament House
Canberra ACT 2600

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Healthy Food Systems Australia welcomes the opportunity to provide feedback to the Senate Select Committee on Supermarket Prices consultation.

Healthy Food Systems Australia is an advocacy group dedicated to promoting a food system that is healthy and sustainable for all people and the planet, through holistic and system-wide policy actions.

Food retail environments and practises are a crucial part of the food system and have the ability to influence a populations' food intake via the products they sell, the suppliers they purchase from, the prices they sell at and the various discounts or offers they provide. It has been well documented over numerous reports and inquiries (e.g. ACCC inquiry 2008; Food Environment dashboard – Supermarkets https://foodenvironmentdashboard.com.au/supermarkets/; NSW Farmers. Who's eating Australian Farmers' Profits https://www.nswfarmers.org.au/NSWFA/NSWFA/Posts/The_Farmer/Trade/Who_is_eating_Australian_farmers_profits.aspx), that the Australian food retail sector – specifically supermarkets – hold inordinate power within the food system and this is exerted in a way that has deleterious consequences on producers, manufacturers and consumers, as well as many other food system impacts. The two largest Australian chains, Coles and Woolworths, account for 70% of grocery sales (1), one of the highest levels of supermarket concentration globally (2). This duopoly situation then has numerous ramifications for supermarkets' influence throughout the food system.

Healthy food and good nutrition are major determinants of health. The right to adequate food is a basic human right (3). Price, affordability, availability and accessibility of healthy, nutritious food is fundamental to food security. Governing bodies must ensure food security and sustainability are not adversely affected by industries that are profit-driven. This Inquiry has been established because there is evidence that the profit motive of supermarkets is leading to a number of practices that are causing harm to producers and consumers alike.

The dominance of two supermarket chains in food retail in Australia emphasizes the need to understand their position and power in the food system, and the potential implications for food systems.

Due to the limited timeframe for responding (over a holiday break) we have been unable to prepare a thorough submission. We are therefore endorsing the extensive submission proffered by the Public Health Association of Australia (PHAA), which is fully evidence based and cites numerous studies relevant to the Terms of Reference of the Committee. We would also recommend reading the Scoping review paper by Pulker et al (4) as this details, in particular, the

dominance of the two major supermarket chains and the ways they are able to exert power over the food system as a result. A copy of the paper is attached.

The issues raised in the PHAA submission led to a number of policy recommendations, which we reiterate here.

- Fully fund and implement the National Preventive Health Strategy, which includes ongoing access to adequate and affordable healthy food options and restricted promotion of unhealthy food and drinks at point of sale and at the end-of-aisle in prominent food retail environments;
- Enhance regulatory frameworks (for both built and online formats of supermarkets) that are mandatory and Government-led and include clear monitoring and enforcement processes for compliance;
- Greater emphasis on discounting the price of healthier food and beverage options;
- Ensure the GST exemption on basic healthy foods is retained in Australia;
- The ABS regularly monitor and survey the CPI (healthy foods) as well as CPI (foods). This would help to better focus on the increasing costs of healthy foods, instead of just all foods including unhealthy options.

Additionally, it has been stated that the best way to regulate supermarket power is to have an alternative. The Speaker advocated political support for direct-to-consumer sales and changes to retail space planning which would foster creativity and support viable alternate food supply methods. (Professor Christine Parker, Presentation at Supermarket Power in Australia Symposium Melbourne University Law School https://law.unimelb.edu.au/centres/clen/engagement/other-clen-items/supermarket-power-in-australia-a-public-symposium/introduction/speakers).

At the same symposium on Supermarket Power, Senator Peter Whish Walton outlined the Greens Competition Policy Summary:

- Amend the Competition and Consumer Act to strengthen provisions around anti-competitive price discrimination and introduce an effects test into Section 46;
- Provide the ACCC with divestiture powers;
- Extend the unfair contract arrangements in the Australian Consumer Law Framework to business-to-business agreements; and
- A temporary ban on the expansion of Coles and Woolworths stores while the ACCC has an opportunity to carry out a comprehensive ex-post assessment on their decisions relating to the grocery market over the past decade.

(Senator Peter Whish Walton Presentation at Supermarket Power in Australia Symposium Melbourne University Law School https://law.unimelb.edu.au/centres/clen/engagement/other-clen-items/supermarket-power-in-australia-a-public-symposium/introduction/speakers).

New Zealand has also recently introduced legislation that bans major supermarkets from blocking their competitors' access to land to set up new stores which has shown to be an impediment to competition from other food retailers. (Minister of Commerce and Consumer Affairs Dr David Clark. https://www.beehive.govt.nz/release/new-law-paves-way-greater-supermarket-competition June 2022).

Regulatory changes that are mandatory, monitored and enforced across the whole food system to address the current skewed power of supermarkets in Australia are necessary and urgently needed.

Thank you again for the opportunity to comment on this important issue.

Yours sincerely,

Honorary Associate Professor Julie Woods, Dr Kate Sievert, Dr Sarah Dickie, Dr Cherie Russell
On behalf of Healthy Food Systems Australia

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obesity reviews

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Public Health

What are the position and power of supermarkets in the Australian food system, and the implications for public health? A systematic scoping review

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Summary

Supermarkets have been described as having unprecedented and disproportionate power in the food system. This scoping review synthesized the literature that describes the position and power of supermarkets in the Australian food system, and the implications for public health. A systematic search of peer-reviewed and grey literature identified 68 documents that described supermarket power. Implications for public health were also recorded. Data revealed that supermarkets hold a powerful position in the Australian food system, acting as the primary gatekeepers. Supermarkets have obtained instrumental, structural and discursive power from many sources that overlap and reinforce each other. Few positive public health impacts of supermarket power were identified, providing many opportunities for improvement in the domains of food governance, the food system and public health nutrition. There is very little public health research examining the impact of supermarket power in Australia. More research is needed, and examination of supermarket own brands is of particular importance owing to their pivotal role as a source of power and their potential to improve public health outcomes, such as obesity.

Keywords: food governance, food system, public health nutrition, supermarket.

Abbreviations: CSR, corporate social responsibility; PPP, public–private partnerships.

Introduction

Globally, supermarkets have been described as having unprecedented and disproportionate power in the food system (1). They were first referred to as the 'new masters of the food system' in 1992 by Flynn and Marsden, who identified the increasing role of British supermarkets in food governance due to the changing political context (2,3), whereby neoliberalism aims to minimize the policy role of the state to promote free trade (4). Supermarkets exercise control over all parts of the food system (5), acting as gatekeepers between food producers and consumers by use of contracts and specifications (6). There are concerns that this power could be financially exploited to the disadvantage of suppliers and consumers (7). Supermarkets make decisions about the product assortment available, how they are arranged into categories, the price, promotional activity, aisle and shelf location, and point of sale merchandising, all of which influence consumer food choice (8). However, the position and power of supermarkets have not yet been synthesized from a public health perspective, defined for the purpose of this research as the conditions needed to improve health and prevent disease in a population (9).

Supermarkets operate within the global food system, which comprises a number of actors: grocery retailers including supermarket chains and independent retailers;

wholesalers; and primary producers and food manufacturers (10); as well as food service operators and government. The power of food companies, including supermarkets, has been explored in terms of food governance (11), and using a taxonomy of corporate political activity (12). The term 'food governance' is used to describe how rules or decisions within the food system are made, and by whom (13). Clapp and Fuchs developed a conceptual framework to describe the different sources of power available to food companies including supermarkets for governance of the food system (11). Instrumental power refers to the direct power of one actor over the decisions of another; structural power describes the ability to limit the range of choices available by agenda setting and rule setting; and discursive power is the capacity to use communication practices that influence societal norms and values to influence political policies and processes (11). The different sources of power overlap and reinforce each other in complex ways (14). In addition, Fuchs recommends that political legitimacy should be evaluated to determine whether power has been obtained democratically, using the criteria of participation, transparency and accountability (15). Participation requires that all affected actors have access to information and decision-making; transparency refers to provision of timely, comprehensive and reliable information; and accountability is the ability to hold actors to account (15). The taxonomy proposed by Mialon and colleagues aimed to categorize the ways political influence is exerted by food companies to shape government policy, which potentially compromises public health (12). It includes six main strategies: information or messaging; financial incentives; building constituency; legal action; policy substitution; and opposition fragmentation and destabilization (12). These frameworks provide useful context for exploring the position and power of Australian supermarkets through a public health lens.

Food system actors including primary producers, food manufacturers, food service operators, industry trade associations and peak bodies, as well as entertainment and media companies, can influence food retail environments, in addition to supermarket chains (16). Transnational food manufacturers have been identified as particularly influential owing to high levels of concentration, whereby the largest companies control a third of the global market (16). These manufacturers have been accused of undermining public health interventions to improve population diets in order to protect continued sales (17). They influence population diets through their products, marketing activities and efforts to influence government public policies (18). They also seek to divert attention away the importance of food environments, instead placing responsibility for preventing obesity and other diet-related non-communicable diseases onto individuals (14). However, the position and power of supermarket chains in the food system and the implications for public health are the focus of this review as these have not been previously explored.

Globally, the proportion of foods purchased from supermarkets is increasing, emphasizing their influence on food provision (19). Most Australian food purchases are made in supermarkets (62% in 2012–2013) (20). Supermarket chains in Australia and other developed countries sell a broad product range, operate large networks of stores and manage their own supply logistics (21). In Australia, independent supermarkets provide a similar product range to the chain supermarkets, but supply logistics are managed by a national wholesaler (21). It is important to note that supermarkets are not homogenous (1), and the products and services available may differ by store. There is the greatest consistency for major supermarket chains, which are managed from central support offices, and they provide the focus for this study.

Concentration of grocery sales into the hands of few supermarket chains has taken place in many developed countries (5) and has been associated with increased power (6). The two largest Australian chains, Coles and Woolworths, account for 70% of grocery sales (22), one of the highest levels of supermarket concentration globally (23). High levels of supermarket concentration are also evident in countries such as New Zealand (24), Austria, Canada, Denmark, Germany, France, Spain and the UK (23). Some of the factors thought to contribute to the high level of supermarket concentration in Australia include the following: concentration of the population in urban centres, which encourages development of large metropolitan supermarkets; long distances between food producing areas and widely dispersed urban centres, which require effective distribution networks; and the economies of scale required to remain profitable given the relatively small population size (25). The dominance of two supermarket chains in food provisioning in Australia emphasizes the need to understand their position and power in the food system, and the potential implications for foods available for consumption.

Globally, large supermarket chains have extended their operations beyond retailing into manufacture, by introducing supermarket own brands (26). Supermarket own brands (also known as private label, in-house brand, store brand, retailer brand or home brand) are owned by retailers, wholesalers or distributors and are sold privately in their own stores (27). The UK, Spain and Switzerland have the highest proportion of supermarket own brand products, where they account for up to 45% of national grocery sales (26,28). Sainsbury UK reported own brands contributing over half of all sales in 2014 (29). In Australia, supermarket own brand sales are growing and are predicted to reach 35% of grocery sales by 2020 (22). The success of supermarket own brands is typically at the expense of small-sized and medium-sized brands (28). For example, supermarkets

can use their power to allocate prominence to their own brands at the expense of branded products (30,31). Little is known about implications of supermarket own brand development for public health.

There is increasing evidence that supermarkets contribute to food choices and diet (32–34). Poor diet is one of the most important risk factors for early deaths globally (35), and healthy food retail environments hold the potential to reduce obesity, non-communicable diseases and their inequalities (36). A New Zealand study found that nutrient-poor extensively processed or 'ultra-processed' foods (37) were the most widely available foods in a sample of supermarkets (38); and a Norwegian study found ultra-processed foods contributed over half of supermarket sales (39). Assessments of Australian supermarket environments have found that less than half of packaged foods could be classified as healthy (24); snack foods (e.g. crisps and confectionery) were prominently displayed at highly visible supermarket locations such as checkouts and ends of aisles (40,41); and food packaging designed to appeal to children was widespread (42–44). As public health interventions in supermarket settings are generally effective in increasing purchases of targeted healthy foods (45,46), policies and practices to improve placement, promotion, pricing and availability of healthy foods hold potential to improve health outcomes, including obesity.

In order to create supermarket environments supportive of healthy choices, an understanding of supermarkets' position and power in the food system, and the public health implications, is needed. A scoping review is a useful way of mapping the existing literature on a topic to identify key concepts, theories and sources of evidence. Scoping reviews can identify and synthesize research findings and gaps in the existing literature (47), or explore the extent of the literature without reporting the findings in detail (48). This scoping review provides an overview of supermarket power using a public health lens. The overall aim was to identify and synthesize the literature that describes the position that supermarkets occupy in the Australian food system including their power and influence over other actors; identify gaps in knowledge; make recommendations for future research; and identify the implications for public health.

Methods

This scoping review was conducted by following the protocol described by Arksey and O'Malley and others (47,49,50). Five steps included the following: define the research question; identify relevant studies; select studies to include; chart the data, whereby data are extracted and synthesized; and summarize and report the results (47,49,50). The overall aim was addressed by a two-part research question: (i) What is known from the existing literature about the position Australian supermarkets occupy in the food system, including their power and influence over other actors, e.g. growers, food manufacturers and government? (ii) What are the potential implications of the position and power of Australian supermarkets for public health? Public health implications of supermarket power were classified into three domains of (i) food governance, including influencing policy and setting rules; (ii) the Australian food system, including influencing livelihoods and communities; and (iii) public health nutrition, including influencing determinants of health that relate to a safe, nutritious, affordable, accessible, secure and environmentally sustainable food system (51).

Search strategy

A search strategy was developed to identify relevant studies. Topics relating to the key concepts of the primary research question were identified as supermarkets, governance and power, food system and Australia. Searches were conducted in September 2016 using the databases Medline (Ovid), ProQuest, Informit, IBISWorld and Business Source Complete, and grey literature including government websites and company websites. Search terms for each of the concepts are listed in Table 1. Results were limited to English-language documents, published between 1980 and 2016. Grey literature was obtained by searching Australian government websites (health, agriculture and commerce) for

Table 1 Search terms used for each of the concepts

Concept	Search terms
Supermarkets	supermarket* OR "food retail*"
Governance and power	authorit* OR concentrat* OR control OR domina* OR "food governance" OR "food polic*" OR legitima* OR "non*state actor*" OR power OR "private regulation*" OR "self regulation" OR "private standard*" OR regulat* OR restructur* OR trust OR "voluntary standard*" OR "corporate political activit*" OR "corporate social responsibilit*" OR "corporate responsibilit*" OR "shared value*" OR CSR OR partnership OR code
Food system actors	"agr*food chain*" OR agr*business OR "food system*" OR "food chain*" OR "food corporation*" OR "food* industry" OR "food supply*" OR "supply chain*" OR "food manufactur*" OR "food process*"
Australia	Australia OR Victoria OR "New South Wales" OR Queensland OR "Northern Territory" OR "Western Australia" OR "South Australia" OR "Australian Capital Territory" OR Tasmania OR Melbourne OR Sydney OR Brisbane OR Darwin OR Alice Springs OR Perth OR Adelaide OR Canberra OR Hobart

relevant reports and Google using combinations of the search terms supermarket, power and governance. Hand searching and snowball searches of the references and citations of selected documents continued until December 2016.

Study selection

All types of documents (e.g. peer-reviewed papers, articles and reports) were reviewed for relevance to the primary research question. The titles and abstracts of documents identified through database, snowball and hand searching were assessed against the inclusion and exclusion criteria defined in Table 2, to select documents for further screening. Full text was downloaded to EndNote X7 citation management software (Thomson Reuters, Philadelphia, PA, USA) and then reviewed prior to final selection of documents for inclusion. The titles and executive summaries of grey literature were similarly assessed against the inclusion and exclusion criteria, before downloading the full text for review. This scoping review included documents with a focus on food and non-alcoholic beverages and excluded documents that only addressed alcohol, tobacco or gaming.

Data synthesis

The data from selected documents were charted to enable synthesis and to identify themes. A framework of the dimensions of power and influence was constructed (Fig. 1), adapted from the work of Clapp and Fuchs (11) and Mialon *et al.* (12). Reference to any aspect of the framework was recorded for each document. Evidence of how supermarket power impacts public health was also recorded for each

Table 2 Inclusion and exclusion criteria

	Inclusion criteria	Exclusion criteria
Language	English	All other languages
Year	1980+	<1979
Country	Australia, international studies with relevance to Australia	International studies without relevance to Australia
Population	Humans	Animal
Exposure	Supermarket	Not supermarket
Outcomes of interest	Referred to sources of supermarket power, or supermarket private governance of the food system	No reference to sources of supermarket power or supermarket private governance; theoretical work with no analysis of the Australian food system
Supermarket products	All food and non-alcoholic beverages	Alcohol, tobacco, gaming only, without reference to food and non-alcoholic beverages
Publication type	Journal articles, book chapters, government reports, non-government organization reports, academic reports, industry reports, market research or report, government initiatives, industry submission documents	Opinion pieces

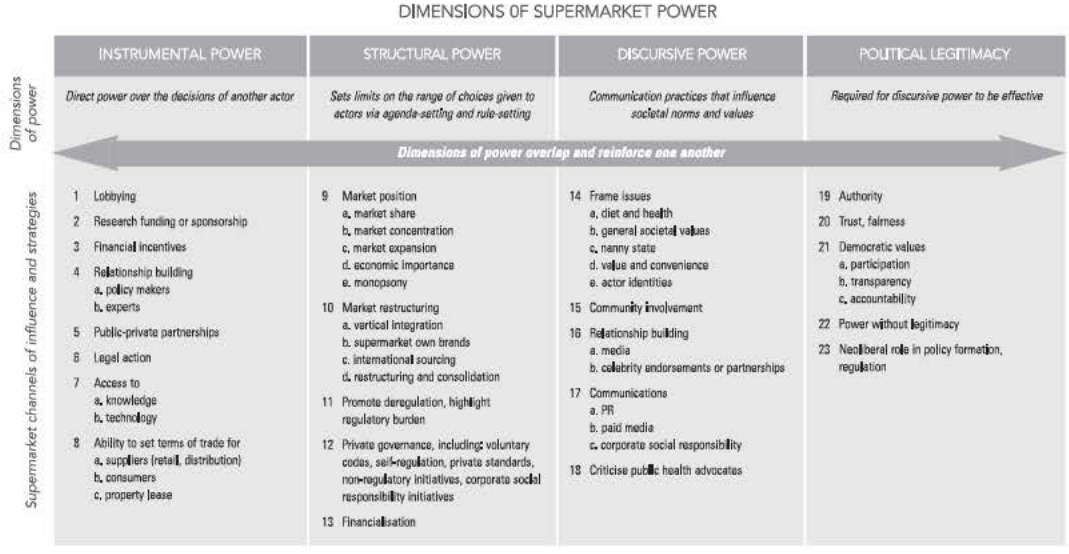

Figure 1 Framework of the dimensions of supermarket power and influence. Adapted from the work of Clapp and Fuchs (11) and Mialon *et al.* (12)

document in the three domains of food governance, food system and public health nutrition. A second reviewer (C. M. P.) extracted data from approximately 10% of the documents; and any disagreements on classification regarding the dimensions of power and influence, or the public health implications, were discussed and resolved.

Results

For the final stage of the scoping review, a summary of the extent, nature and distribution of the studies is given. The database search strategy identified 261 unique documents. After screening titles and abstracts, the full text of 28 documents was assessed for eligibility based on the inclusion and exclusion criteria, and 16 were selected. In addition, 23 documents were identified using snowball searching of citations and references, and hand searching. A further 29 documents were identified by searching grey literature, giving a total of 68 documents included in the scoping review (Fig. 2).

Nature of the evidence base

A wide range of documents were reviewed, including 39 peer-reviewed papers (1,15,18,25,34,52–85), seven government reports (21,86–91), five book chapters (3,92–95), five market research or market reports (22,96–99), three investigative articles (100–102), three lobby or industry submission documents (10,103,104), two industry reports (105,106), two government initiatives (107,108), one non-government organization report (23) and one academic report (109).

These documents were published in a wide range of study disciplines, with the highest number relating to food policy or food systems (20/68) (10,15,21,25,58,60,61,64–68,73–75,83,91–93,95). In addition, there were seven documents for each topic related to competition law (86,87,102–104,106,109), retailing (22,57,62,89,90,96,105) and governance (23,63,71,78,88,94,100); there were six sociology and political science studies (54–56,70,72,101); there were four for each topic related to business (59,97–99), agriculture or agricultural economics (53,77,80,81) and public health (18,84,107,108); three documents were related to rural society or communities (3,52,76); there were two marketing studies (69,82); and there was one for each topic related to preventive medicine (34), international development (1), labour relations (85) and geography (79).

Unsurprisingly, most documents (57/68) were written by an Australian first author (3,10,18,21,22,25,52–61,66,68–93,97,99–110). However, there were a number of documents published by authors from outside of Australia: five from Germany (15,62–64,94), three from the USA (1,34,67), two from the UK (23,96) and one from France (65).

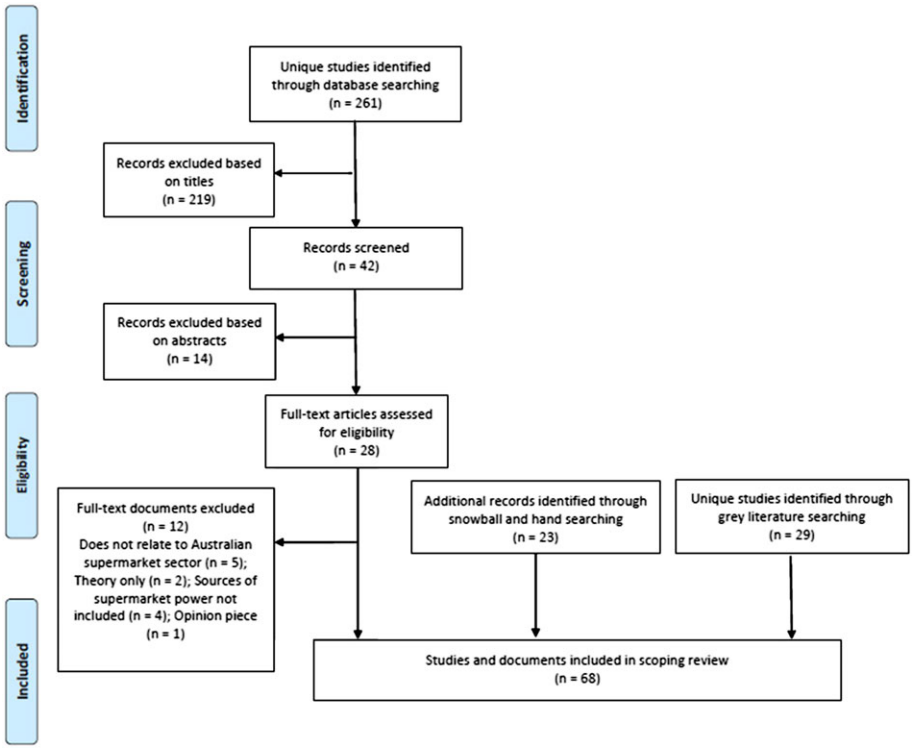

Figure 2 Preferred Reporting Items for Systematic Reviews and Meta-Analyses flow diagram of included documents. [Colour figure can be viewed at wileyonlinelibrary.com]

Only two documents made a statement that there was no conflict of interest (18,79). Most documents did not state the source of funding. Of the documents that did make a statement, most (11/68) received Australian Research Council funding (3,55,56,58,61,68,73–76,83), with overseas institutions funding three studies (1,23,74), industry or an industry group funding two studies (10,109) and one study each receiving funding from the Australian National Health and Medical Research Council (18) and an Australian university (85).

Most of the documents (43/68) applied a framework or theory to the work reported. Economic theory was applied by seven documents (10,67,77,81,86,89,91), with an additional four documents referring to buyer/seller/retail power (23,57,82,102), three specifically referring to anti-trust or anti-competitive conditions (25,78,109) and two referring to market power (90,105). The framework for conceptualizing corporate power in food governance (11) was referred to by nine studies (15,58,59,62–64,74,76,94). In addition, food regimes theory (111) was referred to by five documents (53,54,61,80,95); and three documents referred to multiple frameworks or theories (55,60,71). Authority or trust was the focus of three documents (75,83,93); one document referred to 'Big Food', which describes dominant food businesses (92); two documents referred to an ecological framework of the influences on food choice (1,112); one referred to the process of supermarket domination or 'supermarketization' (3); one referred to global value chain analysis, which identifies how supply and demand can be influenced (66); one referred to the regulatory network analysis approach to policy analysis (72); one referred to corporate political activity (18); and one referred to systemic power or the power of one actor over the whole system of another actor (69).

Sources of supermarket power

All documents reported at least one aspect of supermarket power (i.e. instrumental, structural, discursive and political legitimacy) to meet the inclusion criteria. The frequency of referring to an aspect of supermarket power over time is shown in Fig. 3. The year of publication of the documents ranged from

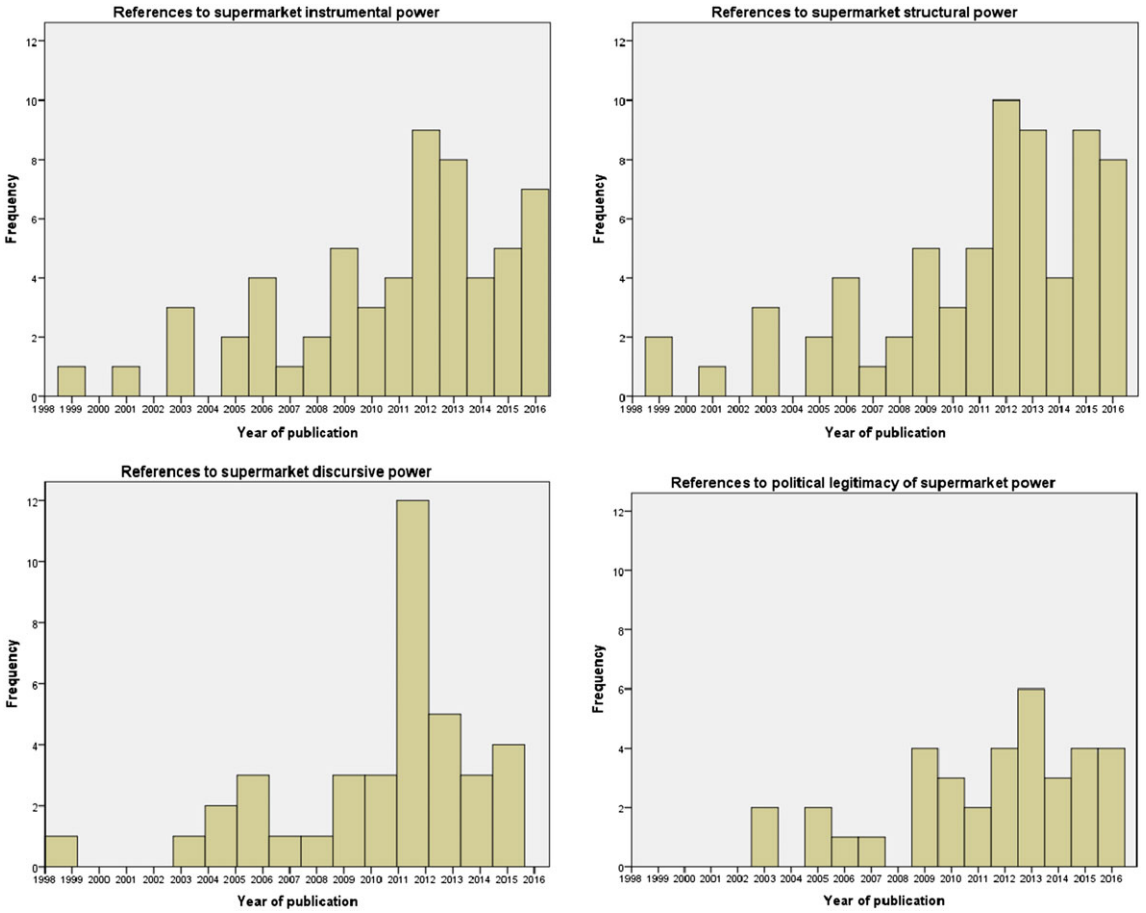

Figure 3 Documents referring to instrumental, structural and discursive sources of supermarket power, and political legitimacy. [Colour figure can be viewed at wileyonlinelibrary.com]

Table 3 Document references to instrumental, structural and discursive sources of supermarket power, and political legitimacy in Australia

First author (year)	Instrumental power	Structural power	Discursive power	Political legitimacy
ACCC (2008) (86)	8 (a)	9 (a, b, c, d), 10 (a, b)	—	—
ACCC (2016) (87)	8 (a)	10 (a, d), 12	—	—
Blewett N (2011) (88)	—	9 (b), 12	14 (e)	—
Booth S (2015) (92)	8 (a)	9 (a, b, c), 10 (a, b, c, d)	—	20, 22
Burch D (1999) (52)	—	9 (a, b, d), 10 (b, c, d)	—	—
Burch D (2005) (53)	8 (a, b)	9 (b), 10 (a, b, c, d), 12	14 (a, b, d), 17 (b)	19
Burch D (2009) (54)	8 (a)	9 (c), 10 (b, c, d), 13	—	23
Burch D (2013) (55)	—	9 (a, b), 10 (a, b, c, d), 12	14 (b, d)	20, 22, 23
Burch D (2013) (56)	8 (a)	9 (a, b, d), 10 (b, c), 12	—	23
Cameron A (2013) (100)	4 (b)	9 (b, d), 12	14 (b)	—
Dapiran GP (2003) (57)	7 (a, b), 8 (a)	9 (a, b), 10 (b)	—	20, 23
Davey SS (2013) (58)	4 (a), 8 (a)	9 (a, b), 12	—	21 (b, c)
Deloitte (2016) (96)	—	9 (d)	—	—
Deloitte Access Economics (2012) (105)	1	9 (a, b, c, d), 10 (a, b, c), 12	14 (d, e)	—
DAFF (2012) (21)	—	9 (a, b, c), 10 (a, b, c, d)	—	—
DoH (2012) (107)	5	9 (d), 10 (b), 12	14 (a)	19
DoH (2016) (108)	5	10 (b), 12	14 (a, b)	19, 21 (b)
Devin B (2016) (59)	8 (a)	9 (a, b), 10 (d), 12	14 (b), 17 (c)	19
Dixon J (2003) (60)	1, 2, 4 (a, b), 8 (a, b)	9 (b), 12	14 (a, b, d), 17 (a, b)	19
Dixon J (2016) (3)	7 (a)	9 (a, b, c, d, e), 10 (a, b, c, d), 12	14 (b, d), 17 (a, b)	19
Dixon J (2013) (61)	8 (a, c)	10 (c), 12	14 (b, d), 15, 17 (b)	—
Dixon J (2007) (93)	4 (b), 7 (a), 8 (a, b)	9 (a, b, c), 10 (b), 12	14 (a, b, d), 15, 16 (b), 17 (a, b, c)	19, 20
Fuchs D (2009) (62)	1	10 (b), 12	14 (b, e), 15, 16 (b), 17 (a, b, c)	19, 20
Fuchs D (2009) (15)	5, 8 (a)	12	—	21 (a, b, c), 22
Fuchs D (2010) (63)	7 (a), 8 (a, b)	9 (a, b, d), 10 (b), 12	14 (b, e), 15, 17 (a, b, c)	19, 23
Fuchs D (2009) (94)	4 (b), 7 (a, b), 8 (a, b)	9 (a, b, c), 10 (a, b), 12	14 (e), 17 (a, b)	19, 21 (a, b)
Fuchs D (2011) (64)	8 (a)	9 (b), 10 (a, d), 12	17 (c)	21 (a, b, c)
Fulponi L (2006) (65)	5	9 (b), 12, 13	14 (a, e), 17 (c)	—
Glanz K (2012) (34)	8 (a)	10 (b)	—	—
Hattersley L (2010) (95)	7 (a, b)	9 (b, d), 10 (a, b, c, d), 12	14 (a, b, d, e), 15, 17 (c)	20
Hattersley L (2013) (66)	8 (a)	9 (a, b), 10 (b, c, d), 11, 12	—	—
Hawkes C (2008) (1)	7 (a, b), 8 (b)	9 (a, b, c, d), 10 (a, b), 12	14 (a, b, e), 17 (c)	—
IBISWorld (2015) (99)	—	9 (a, c, d), 13	—	—
IBISWorld (2015) (97)	—	9 (a, c, d), 10 (b), 13	—	—
IBISWorld (2015) (98)	—	9 (a, c, d), 13	—	—
Jones E (2006) (109)	8 (a, c)	9 (b, c, d), 10 (a, b)	14 (b, e)	19, 22
Keith S (2012) (25)	8 (a, b)	9 (a, b, c), 10 (a, b, d), 12	14 (a, b, e), 17 (b)	—
Knox M (2014) (101)	3, 6, 7 (a), 8 (a)	9 (a, b, c, d), 10 (a, b, d), 12	16 (b)	19
Konefal J (2005) (67)	7 (a)	9 (a, b), 10 (d), 11, 12	14 (e)	19
Lewis T (2015) (68)	4 (b)	9 (b), 10 (b), 12	14 (b, e), 15, 16 (a, b), 17 (b, c)	19
MGA (2015) (106)	8 (a)	9 (a, b)	—	20
Merrett A (2012) (102)	8 (a, b)	9 (b, d, e), 10 (b)	—	—
Merrilees B (2001) (69)	7 (b), 8 (a, c)	9 (a, b, c, d), 10 (a, b, d), 12	—	—
Mialon M (2016) (18)	1, 3, 4 (a, b), 5	9 (d), 11, 12	14 (a), 15	—
Nicholson C (2012) (23)	1, 7 (a), 8 (a, b)	9 (a, b, e), 10 (b), 12	14 (e), 17 (c)	20
Parker C (2013) (70)	8 (a, b)	9 (a, b), 12	14 (b, d, e), 17 (c)	20
Parker C (2014) (71)	4 (b), 8 (a, b)	9 (b, c) 10 (a, b), 12	14 (b, d, e), 16 (b), 17 (a, b, c)	19
Parker C (2017) (72)	—	12	14 (b, d)	19, 23

(*Continues*)

Table 3 (Continued)

First author (year)	Instrumental power	Structural power	Discursive power	Political legitimacy
Phillipov M (2016) (73)	8 (a)	9 (a, b, d), 10 (b), 12	14 (b, e), 16 (a, b), 17 (b, c)	19
Productivity Commission (2011) (89)	1, 8 (a, c)	9 (b, d), 10 (b), 11	14 (e)	—
Report by the Joint Select Committee on the Retailing Sector (1999) (90)	7 (b), 8 (a, c)	9 (a, b, c, d, e), 10 (a, b)	14 (e), 15	—
Richards C (2013) (74)	8 (a)	9 (a, b, c, e), 10 (a, b, d), 12	—	23
Richards C (2011) (75)	4 (b), 8 (a)	9 (a, b, d), 10 (b), 12	14 (b, e), 16 (b)	20, 23
Richards C (2012) (76)	7 (b), 8 (a)	9 (a, b, c, d, e), 10 (a, b, d), 12	17 (c)	23
Round DK (2006) (77)	8 (a, b)	9 (a, b, c, d, e), 10 (a, b)	—	—
Schoff P (2014) (78)	8 (a, b)	9 (a, b, c, d), 10 (a, b, d)	—	—
Select Committee on Australia's Food Processing Sector (2012) (91)	8 (a)	9 (a, b, c, d, e), 10 (a, b, c, d), 12	14 (e), 17 (b, c)	—
Singh-Peterson L (2016) (79)	8 (a)	9 (a, b), 10 (a, d)	—	—
Smith K (2010) (80)	8 (a)	9 (b), 10 (b), 12	14 (a, e)	19, 23
Smith RL (2006) (81)	7 (a), 8 (a, b, c)	9 (a, b, c, d, e), 10 (a, b)	14 (d, e), 17 (b)	—
Sutton-Brady C (2015) (82)	8 (a)	9 (a, b), 10 (b, c), 12	14 (e)	—
The Allen Consulting Group (2011) (10)	7 (a), 8 (a)	9 (d, e), 10 (a, b, c, d)	14 (b, e)	—
Thompson L-J (2012) (83)	8 (a)	10 (a, c, d), 12	14 (b), 16 (a), 17 (a)	19, 23
Tonkin B (2015) (22)	7 (a, b)	9 (a, b, c, d), 10 (a, b)	17 (a)	—
Wardle J (2009) (84)	8 (a)	9 (a, b, e), 10 (a, b)	14 (b, d)	—
Wilson T (2013) (103)	1	9 (a, b, c, d), 10 (a, b), 11	14 (d, e), 17 (b)	23
Woolworths Ltd (2014) (104)	1, 7 (a, b)	9 (a, b, c, d), 10 (b, c), 11, 12	14 (d, e), 15, 17 (b)	23
Wright C (2003) (85)	7 (a, b), 8 (a, b)	9 (a, b, e), 10 (a, b, d), 11	—	—

Instrumental power: 1, lobbying; 2, research funding or sponsorship; 3, financial incentives; 4(a), relationship building, policy makers; 4(b), relationship building, experts; 5, public–private partnerships; 6, legal action; 7(a), access to knowledge; 7(b), access to technology; 8(a), ability to set terms of trade for suppliers (retail and distribution); 8(b), ability to set terms of trade for consumers; 8(c), ability to set the terms for property lease. *Structural power*: 9(a), market share; 9(b), market concentration; 9(c), market expansion; 9(d), economic importance; 9(e), monopsony (buyer power); 10(a), vertical integration; 10(b), supermarket own brands; 10(c), international sourcing; 10(d), market restructuring and consolidation; 11, promote deregulation or highlight regulatory burden; 12, private governance, e.g. self-regulation, private standards, CSR; 13, financialization. *Discursive power*: 14(a), frame issues – diet and health; 14(b), frame issues – societal values; 14(c), frame issues – nanny state; 14(d), frame issues – value and convenience; 14(e), frame issues – actor identities; 15, community involvement; 16(a), relationship building – media; 16(b), relationship building – celebrity endorsements; 17(a), communication – PR; 17(b), communication – paid media; 17(c), CSR communications; 18, criticize public health advocates. *Political legitimacy*: 19, authority; 20, trust, fairness; 21(a), democratic values – participation; 21(b), democratic values – transparency; 21(c), democratic values – accountability; 22, power without legitimacy; 23, neoliberal role in policy formation/regulation.
CSR, corporate social responsibility; PR, public relations.

1999 to 2016, with the majority (40/68) published from 2012 onwards (3,18,21–23,25,34,55,56,58,59,61,66,68,70–74,76,78,79,82,83,87,91,92,96–108,110). Table 3 shows document references to instrumental, structural and discursive sources of supermarket power, and political legitimacy.

Instrumental power

Supermarkets have obtained instrumental power, or direct power, over the decisions of other actors by lobbying; providing research funding or sponsorship; giving financial incentives; building relationships with policy makers and experts; contributing to public–private partnerships (PPP); taking legal action; having access to knowledge and access to technology; and having the ability to set terms of trade for suppliers and consumers and for property lease. The ability of supermarkets to set the terms of trade for suppliers was the most commonly reported source of supermarket instrumental power (44/68) (10,15,23,25,34,53,54,56–61,63,64,66,69–71,73–87,89–94,101,102,106,109).

Structural power

Structural power has been obtained by supermarkets by setting limits on the range of choices given to other actors by agenda-setting and rule-setting activities. Aspects of supermarket structural power include high market share; high levels of market concentration whereby few companies command a high proportion of supermarket sales; market expansion, i.e. expansion into new markets; emphasizing economic importance; monopsony, or buyer power, which occurs when a large number of sellers access the market via a small number of retailers; vertical integration whereby previously separate parts of the supply chain such as

production, distribution and retailing are integrated; development of supermarket own brands; international product sourcing; market restructuring and consolidation of other actors within the food system, e.g. smaller producers being purchased by larger producers; promotion of deregulation and highlighting regulatory burden; private governance, e.g. self-regulation, private standards and corporate social responsibility (CSR) initiatives; and financialization whereby financial institutions become primary shareholders of supermarkets. The structural aspect of supermarket power was most frequently referred to, with high market concentration (53/68) (1,3,18,21–23,25,52,53,55–60,63–71,73–82,84–86,88–96,100–104,106,109), development of supermarket own brands (48/68) (1,3,10,21–23,25,34,52–57,62,63,66,68,69,71,73–78,80–82,84–86,89–95,97,101–105,107–109) and private governance of the food system by supermarkets (43/68) (1,3,15,18,23,25,53,55,56,58,59,61–66,68–76,80,82,83,87,88,91,93–95,100,101,104,105,107,108) mentioned the most.

Discursive power

Discursive power has been obtained by supermarkets via communication practices that influence societal norms and values, including framing issues around diet and health, societal values, value and convenience, and food system actor identities; community involvement; building relationships with media, and celebrity endorsements; and communication practices via public relations, paid media or advertising, and CSR reporting. The aspects of discursive power referred to most often by the documents included framing issues around actor identities (26/68) (1,10,23,25,62,63,65,67,68,70,71,73,75,80–82,88–91,94,95,103–105,109) and societal values (25/68) (1,3,10,25,53,55,59–63,68,70–73,75,81,83,84,93,95,100,108,109).

Political legitimacy

Some documents included reference to the political legitimacy of supermarket power, i.e. whether their power has been obtained democratically via the attributes of participation, transparency and accountability (15). Supermarkets have obtained political legitimacy for their power by other means including authority; trust or fairness; and the neoliberal role in policy formation and regulation, whereby the policy role of government is minimized to promote free trade. In some instances, supermarkets have gained power without legitimacy. Political legitimacy of supermarket power was referred to the least by the scoping review documents. Authority (19/68) (3,53,59,60,62,63,67,68,71–73,80,83,93,94,101,107–109) and the neoliberal role in policy formation and regulation (13/68) (54–57,63,72,74–76,80,83,103,104) received the most attention.

Implications for public health

This scoping review found evidence of how supermarket power impacts public health in the three domains of food governance, the food system and public health nutrition (Table 4). Only five documents did not refer to any of these implications (54,57,88,96,106). Overall, few (6/46) positive impacts were identified, and most were negative (21/46). There were some impacts classified as 'both positive and negative' (19/46), demonstrating the opportunity for supermarket power to be used positively or negatively, e.g. determining nutrients in supermarket own brand foods (Fig. 4).

Nature of the evidence on public health implications

The frequency of documents referring to the public health implications by type of scoping review document is shown in Fig. 5. Peer-reviewed papers referred to all of the public health implications, apart from supermarkets' contribution to the standardization of food tastes and preferences—instead this information was extracted from a government report (1/7) (91) and a book chapter (1/5) (95); and supermarkets' impact on public health via sales and promotion of tobacco, alcohol and gaming, which was extracted from two government reports (2/7) (90,91), a book chapter (1/5) (92) and four market reports (4/5) (22,97–99). Interestingly, the industry reports and lobby documents identified some public health implications of supermarket power, including the following: Supermarkets determine quality standards for food producers (2/5) (104,105); supermarkets determine food prices (4/5) (10,103–105); supermarkets deliver cheap food to consumers (4/5) (10,103–105); and supermarket own brands affect overall food prices (2/5) (10,105). Public health documents (18,84,107,108) did not refer to the accessibility or sustainability aspects of public health nutrition impacts of supermarket power (Table 4).

Discussion

This scoping review aimed to identify and synthesize the peer-reviewed and grey literature that describes the position that supermarkets occupy in the Australian food system, including their power and influence over other actors, and the implications for public health. The review included a wide range of types of documents, across a large number of disciplines. Documents were published between 1999 and 2016, with most written by a first author located in Australia. The potential sources of supermarket power were mapped in a framework (Fig. 1), and sources of instrumental, structural and discursive power were identified from the scoping review documents, along with evidence of political legitimacy. In addition, the implications of supermarket power for food governance, the food system and public health nutrition were identified from scoping review

Table 4 Document references to public health impacts of supermarket power

First author (year)	Public health nutrition							Food governance	Food system
	Food safety and quality	Nutritional quality	Food cost and affordability	Accessibility	Food preferences	Sustainability	Availability		
ACCC (2008) (86)	—	—	—	—	17	—	—	—	46
ACCC (2016) (87)	1	—	—	—	—	—	—	—	36
Blewett N (2011) (88)	—	—	—	—	—	—	—	—	—
Booth S (2015) (92)	—	—	—	—	—	—	23	30, 34	36, 46
Burch D (1999) (52)	5	7	12	—	15	—	—	—	37, 46
Burch D (2005) (53)	1, 3	—	—	—	15	—	23, 25	30, 35	36, 41, 45
Burch D (2009) (54)	—	—	—	—	—	—	—	—	—
Burch D (2013) (55)	1	7, 9	10	13	15	—	23, 25	27, 30, 31, 32, 35	36, 39
Burch D (2013) (56)	1, 2	—	11	—	—	—	25	29, 31	39
Cameron A (2013) (100)	—	6,7	11		15	18, 22	—	26, 32	36, 46
Dapiran GP (2003) (57)	—	—	—	—	—	—	—	—	—
Davey SS (2013) (58)	1, 4	—	—	—	—	—	—	30, 31	39, 46
Deloitte (2016) (96)	—	—	—	—	—	—	—	—	—
Deloitte Access Economics (2012) (105)	1	—	10, 11, 12	—	—	—	—	30	46
DAFF (2012) (21)	—	—	12	—	—	—	—	30	36, 45
DoH (2012) (107)	—	9	—	—	—	—	—	27	—
DoH (2016) (108)	—	—	—	—	—	—	—	26, 27	—
Devin B (2016) (59)	1	—	—	—	—	18, 19, 20	—	—	—
Dixon J (2003) (60)	1	—	—	—	15	—	25	30, 35	—
Dixon J (2016) (3)	1, 2	—	10,11	—	15	—	—	—	36, 38, 39, 42
Dixon J (2013) (61)	3	6	—	—	—	—	—	26, 31	36, 38, 39, 42
Dixon J (2007) (93)	1	—	—	—	15	—	—	28, 33, 35	36
Fuchs D (2009) (62)	2, 3	9	—	—	15	18	—	26, 30, 35	—
Fuchs D (2009) (15)	1, 2, 3	—	—	—	—	18	—	32	36
Fuchs D (2010) (63)	1, 3	9	10, 11	—	15	18	—	27, 29, 30	36, 42
Fuchs D (2009) (94)	1, 3, 4, 5	—	—	—	—	18	24	29, 32	36, 39, 42
Fuchs D (2011) (64)	1, 3	—	—	—	—	18	—	32	39, 42
Fulponi L (2006) (65)	1, 4	9	—	—	—	—	—	27, 30	36
Glanz K (2012) (34)	—	8, 9	10	13, 14	—	—	—	—	—
Hattersley L (2010) (95)	1, 3, 4	6, 8, 9	10, 11	13, 14	15, 16	—	23, 25	27, 28, 31, 35	36, 38, 39
Hattersley L (2013) (66)	3	—	10	13	—	—	23	—	—
Hawkes C (2008) (1)	1, 4	6, 7, 8, 9	10, 11	13	15	—	23, 25	27, 30	36, 37
IBISWorld (2015) (99)	—	—	—	—	—	—	—	34	—
IBISWorld (2015) (97)	—	—	—	—	—	—	—	34	—
IBISWorld (2015) (98)	—	—	—	—	—	—	—	34	—
Jones E (2006) (109)	1	—	11	—	—	21	—	30	36, 39, 43, 46
Keith S (2012) (25)	1	—	10, 12	—	15	20	23	—	36, 37, 39, 40, 42, 46
Knox M (2014) (101)	1	—	10, 11	—	—	19, 20, 21	—	—	36, 42, 43
Konefal J (2005) (67)	1, 2, 4, 5	—	10	—	15	—	23, 25	27, 28, 30, 32	—
Lewis T (2015) (68)	1, 4	—	—	—	—	22	—	28, 30	—
MGA (2015) (106)	—	—	—	—	—	—	—	—	—
Merrett A (2012) (102)	—	—	12	—	15	—	—	—	43, 45, 46

(*Continues*)

Table 4 (Continued)

First author (year)	Public health nutrition							Food governance	Food system
	Food safety and quality	Nutritional quality	Food cost and affordability	Accessibility	Food preferences	Sustainability	Availability		
Merrilees B (2001) (69)	1	—	10	—	—	—	—	—	36
Mialon M (2016) (18)	—	7	—	—	15	—	23	26, 35	—
Nicholson C (2012) (23)	1, 3, 4, 5	—	10, 11	—	15	20	23	30	36, 39, 43, 45, 46
Parker C (2013) (70)	1	—	10	—	15	18	24	—	36, 40, 42
Parker C (2014) (71)	1, 3 4, 5	8	10	—	15	22	23, 25	29, 30, 35	38, 40, 43
Parker C (2017) (72)	1, 4	—	10	—	—	22	24	—	—
Phillipov M (2016) (73)	1, 4	—	—	—	—	18, 20, 21	—	—	36, 37, 40
Productivity Commission (2011) (89)	—	—	10	—	—	—	—	34	41
Report by the Joint Select Committee on the Retailing Sector (1999) (90)	1	—	10	—	—	—	—	—	36, 39, 43
Richards C (2013) (74)	1, 4	—	10	—	—	—	—	32, 33	36, 37, 42, 44
Richards C (2011) (75)	1, 2, 4	—	—	—	—	20	24	—	38, 40, 44
Richards C (2012) (76)	1, 4	—	10	—	—	—	—	31	40
Round DK (2006) (77)	—	—	—	—	15, 17	—	23, 24	30, 33	36
Schoff P (2014) (78)	—	7	—	—	15	—	23	—	43
Select Committee on Australia's Food Processing Sector (2012) (91)	1	—	10, 12	—	15, 16	—	—	34	36, 41, 43, 44, 45
Singh-Peterson L (2016) (79)	-	—	10, 11	13, 14	—	—	—	—	39
Smith K (2010) (80)	1, 4	—	—	—	17	18	—	30, 31, 32, 35	36, 44
Smith RL (2006) (81)	1, 3	—	—	—	—	—	—	—	36, 45
Sutton-Brady C (2015) (82)	3	—	10	—	15	—	—	30, 31	44
The Allen Consulting Group (2011) (10)	—	—	10, 11, 12	—	—	—	—	33	43
Thompson L-J (2012) (83)	1	—	11	—	—	18	23	30	44
Tonkin B (2015) (22)	3	6	10, 11, 12	—	15	—	23	34	36, 43
Wardle J (2009) (84)	1, 5	—	10	—	15	—	—	27, 28, 30	43
Wilson T (2013) (103)	—	—	10, 11	13	—	—	—	—	43
Woolworths Ltd (2014) (104)	1	—	10, 11	13	—	—	25	—	—
Wright C (2003) (85)	—	—	10	13	—	—	23	—	37, 41

1, determine quality standards; 2, deliver safe food; 3, private standards have positive effects on food safety, quality; 4, private standards extend beyond food safety (cosmetic appearance, environment, ethical and social requirements); 5, own brands affect overall product quality; 6, sell unhealthy food, encourage consumption of discretionary foods; 7, own brands affect available healthy food, influence population health; 8, own brands present an opportunity to improve the food supply; 9, determine nutrients in own brand foods including fat, sugar and salt; 10, determine prices; 11, deliver cheap food; 12, own brands affect overall food prices; 13, determine where to sell food, i.e. store location, shelf location; 14, improve access to affordable, healthy foods; 15, Influence food choice, food cultures; 16, contribute to standardization of food tastes and preferences; 17, own brands affect choice; 18, private standards do not adequately address sustainability; 19, waste initiatives do not address the whole of food system; 20, supply arrangements drive high wastage of fresh produce; 21, drive loss of species diversity; 22, shifted public debate from acceptable animal welfare standards to labelling standards; 23, determine what food is produced, what food is available; 24, appear to offer consumers choice but provide little information to inform those choices; 25, own brands drive innovation, e.g. ready-to-eat convenience foods, ethically sourced foods, gluten free; 26, influence Australian food and nutrition policy; 27, influence population dietary intake; 28, act as guardians of public health, in the absence of government action; 29, manage food systems effectively, with minimum government regulation; 30, gatekeeper role – food standards, food supply; 31, government does not intervene in their power; 32, private standards are set without participation from other actors; 33, affect the welfare of the Australian population; 34, impact on public health via sales and promotion of tobacco, alcohol and gambling; 35, act as authorities in food and health; 36, viability of small producers/small retailers is uncertain; 37, favour bigger

producers, large transnational food manufacturers; 38, growth in alternative food networks, e.g. farmers markets; 39, affects rural communities; 40, entrenched intense industrial food systems, invisible to consumers; 41, drive workforce changes throughout the food system, e.g. casualization, work intensification; 42, small producers become larger or exit; 43, lower prices for consumers come at the expense of Australian producers; 44, suppliers bear the cost of compliance for multiple private standards; 45, own brands impact on manufacturer product innovation; 46, own brands impact on competition, branded manufacturer viability.

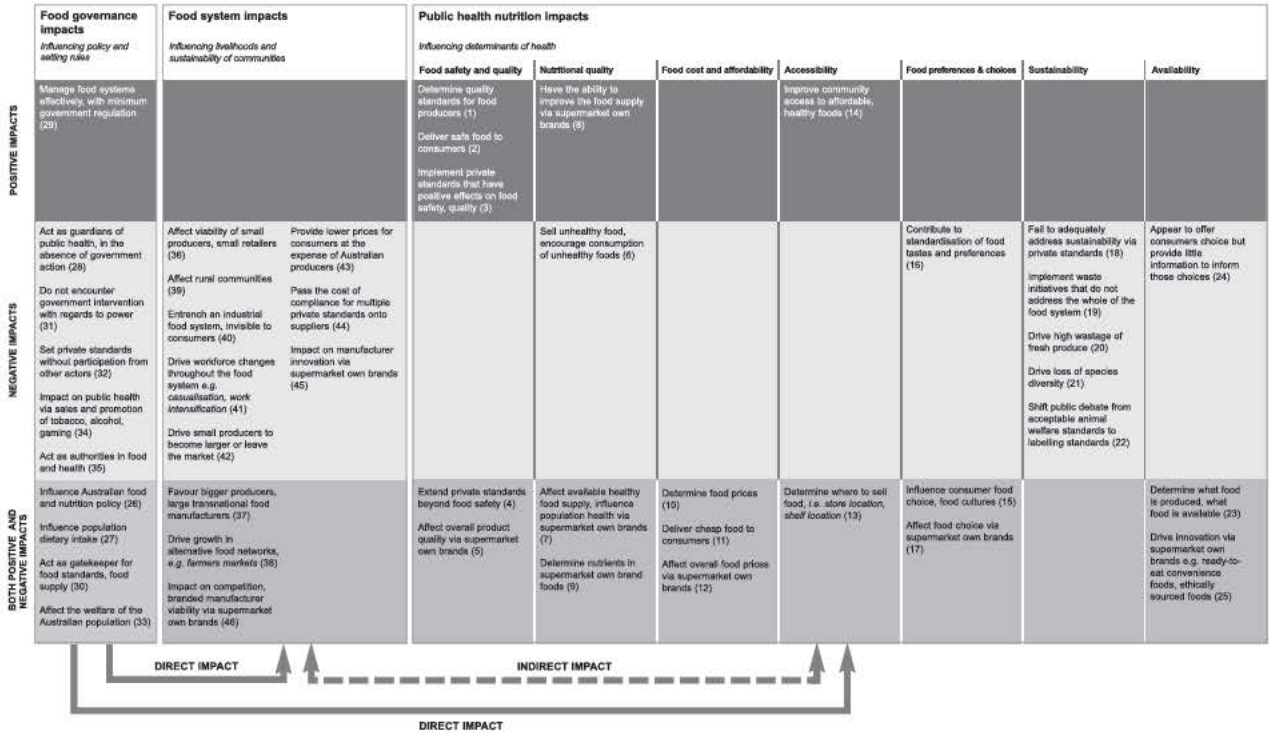

Figure 4 Evidence of how supermarket power impacts public health.

documents. By summarizing the diverse literature in this review, researchers and policy makers should gain an understanding of the sources of Australian supermarkets' power, and the far-reaching implications for public health.

Supermarket instrumental power

Ability to set the terms of trade for suppliers

The aspect of supermarket instrumental power that received the most attention by scoping review documents was their ability to set the terms of trade for suppliers. The food governance role of supermarkets enables them to set the terms of trade for suppliers by using voluntary private standards that are required to be met (67). These private standards can be used to determine who the food producers are, where they are located and what the conditions of production are (67). Food producers allow supermarkets to control many management decisions, in order to secure sales (83). For example, primary food producers are uncertain of whether fresh produce will be accepted until it reaches the supermarket distribution centre, where it is graded and can be rejected (59). If rejected, the producers have to accept the produce back and either repack it before it can be sold via wholesale markets or dispose of the waste (59). Concerns about the effects of supermarket power over suppliers have been a factor considered by a number of government investigations into the food and grocery industries (86,87,89–91), but academic analysis has challenged whether the issue had been coherently examined (109). Government intervention in the process could be considered a risk to suppliers and consumers owing to the complex nature of buying and retailing (23).

Supermarket structural power

The structural power of supermarkets received the most attention by the scoping review documents, including high market concentration, development of supermarket own brands and private governance of the food system by

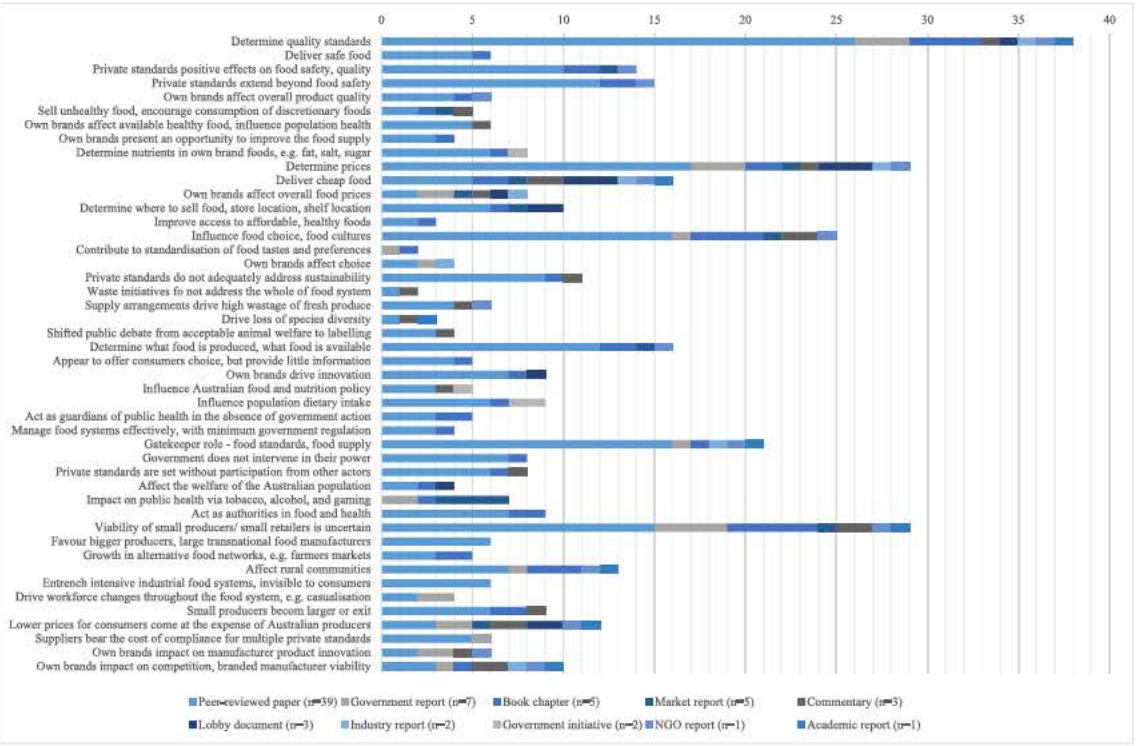

Figure 5 Number of documents referring to the public health implications of supermarket power, by document type. [Colour figure can be viewed at wileyonlinelibrary.com]

supermarkets. For example, the process of 'supermarketization', or supermarket domination of the food system, was described as having six stages starting with concentration of grocery sales by a small number of supermarket chains, leading to monopsony conditions where many suppliers compete for space on the shelves of few supermarket chains (3), thus controlling access to consumers (82). Other stages of supermarketization included implementation of supermarket private standards and development of supermarket own brand products (3).

Market concentration

The high concentration of supermarkets has been considered by Australian government reviews of the sector. For example, the 2008 inquiry into the competitiveness of grocery retail prices concluded that supermarkets Coles and Woolworths, and wholesaler Metcash, had significant power as a result of many suppliers having few alternatives to dealing with them (86). Supermarket power derived from concentration allowed them to set terms of trade for suppliers, such as reducing prices paid, delaying payments and passing the costs associated with quality auditing and price promotions down the supply chain (71). Concentration of the supermarket sector has also been identified as a condition for proliferation and success of supermarket own brands (26) and can force food system actors (e.g. suppliers and government) into acceptance of supermarket private governance (58). These examples show the complexity of supermarket sources of power, which overlap and reinforce each other (14).

Supermarket own brands

Development of supermarket own brands was referred to by many scoping review documents. Some of the practical benefits of own brands to supermarkets include more efficient production, lower costs for product development and advertising (1) and increased profits (52). The own brands allow supermarkets to exert more control over supply chains, as they become vertically integrated with food production (95). Development of own brands also provides supermarkets with power over suppliers by strengthening their bargaining position (10) and provides valuable information about food production, which strengthens their knowledge about the supply base (3). Supermarkets can introduce more flexible sourcing strategies for own brands, e.g. importing product from international manufacturers (56). Supermarkets utilize own brands to leverage power over consumer choices by using them as a brand switching device (3), to differentiate themselves from competitor supermarkets (71) and to develop consumer trust and loyalty (95). Indeed, the 2008 government inquiry reported that over 80% of consumers had bought supermarket own brand products (86), and own brands are predicted to reach

35% of grocery sales by 2020 (22). Supermarket own brands play a pivotal role in supermarkets' power over the food system according to the documents in this scoping review (Table S1).

Private governance

Supermarket private governance of the food system is another important mechanism that manifests and extends their power (94). Supermarket governance typically takes the form of quality standards that food producers are required to meet in order to achieve supplier status with each supermarket. The private standards are described as reflecting supermarkets' interests of reputation management and product marketing (15) and are used to set rules about acceptable food safety, product quality, cosmetic appearance of fresh produce, environmental management practices and ethical practices such as fair trade and organic (58). In addition, supermarkets set packaging requirements for fresh produce suppliers (82). Supermarket private standards are more stringent than government food safety standards and are not streamlined, which means suppliers have to comply with numerous standards and meet the costs of third-party auditing (74). Aspects of private standards concerned with the sustainability attributes of animal welfare, ethical trade and environmental credentials allow supermarkets to extend their governance role (58). Private governance has given supermarkets control of the safety, quality and sustainability of the food system, which affects the public health of all consumers (64); and many significant decisions regarding public health have been made by supermarkets (67). Supermarket CSR initiatives in other countries have included reformulating supermarket own brand products to reduce saturated fat, sugars and salt (55) and developing healthy lines of supermarket own brand products (1). However, supermarkets still place the responsibility for making healthy choices onto consumers, limiting the impact of their CSR initiatives (1). Private governance by supermarkets over the rest of the food system has received a great deal of attention by the documents in this scoping review, reflecting the far-reaching consequences of this source of power.

Supermarket discursive power

Framing issues around societal values

Supermarkets obtain discursive power by utilizing marketing and communication practices that influence societal norms and values, including framing issues around societal values, and actor identities. Supermarkets' framing of societal values included encouraging new ways of consumer thinking about food and shopping. For example, they communicated what a 'proper meal' should be by working with celebrity chefs to promote ready-to-eat foods (60), contributing to the erosion of consumers spending time preparing meals (95). Supermarkets have adopted the local references used by rural food producing communities, in an attempt to establish themselves (61). Supermarkets have framed the introduction of animal welfare standards across own brands as providing better-tasting products for consumers, downplaying the values of high animal welfare (68). At the same time, they have successfully argued for weakened standards, such as for free-range eggs, in order to keep costs down and achieve low prices (72).

Framing issues around actor identities

Supermarkets have framed issues around actor identities, including their own. Communications campaigns have presented supermarkets as guardians of the consumer, efficient actors in the food system, and efficient and effective in design and implementation of private standards (94). Supermarkets have attempted to address negative consumer perceptions about their size and scale by creating a new marketplace layout and design; providing more information about locally grown fresh produce (25); and creating marketing campaigns that emphasize individual farmers and their families, rather than large industrial producers (73). Similarly, supermarkets have used communications campaigns to promote low prices, to influence consumer perceptions of their price competitiveness (81). Coles have described their consumer-focused role as a 'bundling service' whereby they source a wide range of products from suppliers and sell them in supermarkets as a convenience to consumers (105). Woolworths similarly describes the benefits of increasing supermarket concentration for Australian consumers, which has resulted in large modern supermarkets that deliver value, choice and convenience (104). The main theme of Australian supermarkets' defence when described as dominant in the food system is that they are good for consumers (109).

Framing the identities of other food system actors, supermarkets have argued that the state does not always have the capacity to set standards, or their processes are too slow, which is why supermarkets are more effective at setting private standards (67). Woolworths described the reasons for small retailers failing, including financial mismanagement, lack of business skills or capital, and general economic conditions (90). Coles framed the future of Australian food processors within the overall decline of manufacturing in developed countries, stating that they needed to invest in export capacity, new products and quality improvements; increase production efficiency; or relocate offshore (10). These issues demonstrate the complex ways that supermarket power derived from framing issues serves to promote their food governance role, with supermarket standards regarded by many as positive for the food system (94).

Legitimacy of supermarket power

Authority status

Political legitimacy of supermarket power has been obtained via their authority status. Supermarkets' power

over the food system has been granted on the basis of consumers and government not challenging and therefore accepting their legitimacy, despite the fact they are unelected rule makers (63). Supermarkets have gained this authority by consistently delivering fresh, safe food to consumers, and by supporting consumers' busy lifestyles via increased availability of ready-to-eat foods (53). Invitation to participate in government initiatives such as the Food and Health Dialogue (107) and the Healthy Food Partnership (108) serves to reinforce supermarkets' authority status, as does their association with credible health experts such as the Dietitians Association of Australia and the Heart Foundation (60) and animal welfare organizations such as the RSPCA (68).

Gaps in information and research recommendations

The scoping review revealed that sources of Australian supermarket power and legitimacy were evident across the framework (Fig. 1). However, few documents examined supermarket instrumental power achieved by participation in PPP activity. The Australian government has worked with supermarkets on PPP food and nutrition initiatives since 2009, including the Food and Health Dialogue (107), and the more recent Healthy Food Partnership (108). There has been limited Australian government action on national nutrition policy since 2010, with the Healthy Food Partnership comprising one of only two national policy actions (the other being voluntary front-of-pack labelling) (113). The Healthy Food Partnership aims to improve the nutrition of all Australians by encouraging healthy eating, and comprises representatives from public health, government, a peak body representing the interests of food manufacturers, the two supermarkets Coles and Woolworths, and wholesaler Metcash (108). The extent of supermarket power is demonstrated though this membership whereby the supermarkets and wholesaler are individually represented but transnational food manufacturers are represented by one peak body. Given the power supermarkets hold within the Australian food system, and limited government national nutrition policy action, it is important that their influence over PPP initiatives that potentially impact the health of all Australians is transparent and aligned with public health priorities, and this deserves more attention from researchers. If managed appropriately, participation from supermarkets holds great potential to improve the food supply.

The scoping review documents discussed Australian supermarket power obtained by private standards including CSR activity. Supermarkets have initiated CSR to demonstrate commitments to reducing food waste (59), and animal welfare (71), as well as support government-led initiatives such as the Healthy Food Partnership (108). The current study found very little published information about the extent and nature of Australian supermarkets' CSR commitments, or how CSR is utilized as a source of power. There have been few public health evaluations of Australian food industry CSR activity, and none focusing specifically on supermarkets to date (18,114,115). There is evidence from other countries of work being undertaken by supermarket chains to assist their customers to select healthy foods. For example, a supermarket-wide shelf-edge labelling system that identifies healthy foods has been adopted by five chains in the USA (116) to overcome consumers' inability to make sense of packaging information (117). US grocer Daily Table has been described as the first not-for-profit store that aims to provide nutritious and affordable meals for low-income families (118). In the UK, Tesco and Sainsbury have improved the nutrient profile of supermarket own brand foods, removed confectionery and sugar-sweetened beverages from checkouts (119,120) and banned multi-buy promotions that encourage large purchases of sugar-sweetened beverages, biscuits, confectionery and potato chips (121). Loblaws in Canada has introduced personalized shopper profiles that track the healthiness of foods purchased (122).

Global assessments of the food industry's CSR impact on public health, such as the Access to Nutrition Index (123), which aims to encourage private sector companies to increase access to healthy products and to responsibly exercise their influence on consumers' food choice and behaviour, do not include supermarkets within their scope, despite the massive growth of own brands globally (124). Based on the findings of this current study, and assuming that supermarkets have similar power in other developed countries, a similar survey of the largest global supermarkets is recommended to increase transparency regarding the size and scale of their actions. Research that examines Australian supermarket CSR as a source of power, and the impact on public health, is also needed.

Aspects of discursive power that have been attributed to the Australian food industry include framing the debate regarding personal responsibility for being active and stating that the food industry provides safe foods, and promotes healthy lifestyles (18). However, these practices were not evident for supermarkets in this scoping review. In addition, none of the documents referred to supermarkets framing issues around the government acting as a 'nanny state' to protect public health, or criticizing public health advocates, which previous research identified as tactics used by the Australian food industry (18). This suggests that either supermarket discursive power is obtained and used in different ways to other actors in the food system, or there is a gap in the literature, which warrants further examination. The complex relationships between supermarkets, transnational food manufacturers and industry associations, and their influence over public policy have not been explored and deserve more attention in future research.

Implications of supermarket power for public health

In addition to synthesizing the sources of Australian supermarkets' power, this scoping review examined the documents for descriptions of the implications for public health. These findings are mapped in a framework of the public health implications of supermarket power (Fig. 4). Few positive public health impacts of supermarket power were identified, providing many opportunities for improvement in the domains of food governance, the food system and public health nutrition.

Implications for food governance

Supermarkets act as guardians of public health owing to their power within the food system (95). Through association with food and health experts, they have established reputations as authorities in these areas (72,93,95). Supermarkets sell tobacco in stores and operate licensed premises that sell and promote alcohol and gaming, thus impacting negatively on public health beyond food and non-alcoholic beverage retailing (92). They influence national food and nutrition policy and population dietary intake through their participation in Australian government PPPs, such as the Food and Health Dialogue (107) and the Healthy Food Partnership (108). They also act as gatekeepers of food standards (55,58) and the food supply (77,109). The one positive food governance impact identified was that supermarkets manage the food system effectively to deliver cheap and safe food, with minimal government regulation (56). This positive finding is of enormous benefit to consumers.

Implications for the food system

The power of supermarkets has challenged the viability of small retailers (3,81). Supermarkets tend to favour bigger producers and large transnational food manufacturers over small producers (85), whose viability is also uncertain (3,94). Small producers have become larger to meet the increasing costs of doing business with supermarkets, or have left the market (74). Owing to advances in technology and digital information, supermarkets have introduced a just-in-time way of operating that has driven workforce changes throughout the food system, including casualization and work intensification (85). Supermarkets have entrenched an industrial food system that is invisible to consumers (71,73). Ultimately, lower prices for consumers come at the expense of Australian producers (109). Until recently, all suppliers had to bear the cost of compliance with multiple supermarket private standards (74). (Australian supermarkets have collaborated with primary producer group Horticulture Australia to create a Harmonised Australian Retailer Produce Scheme, which was introduced at the beginning of 2017 (125).) The cost of competing with supermarket own brands impacts on investment by branded manufacturers into product innovation (21,53), and their financial viability (102,109). Supermarket own brands also impact on competition within the market (102), placing pressure on wholesale prices (21), which can be positive or negative for consumers. Consumer discontent with supermarket power has been a factor driving growth in alternative food networks such as farmers markets (3). No positive food system impacts were identified.

Implications for public health nutrition

Food safety and quality

Through implementing private quality standards, supermarkets have had positive effects on food safety and quality (15,22,23,53,61–64,66,71,81,82,94,95), resulting in a safe food supply (3,15,56,62,67,75). However, supermarkets now use private standards to exert control over aspects of food production that extends beyond food safety, including cosmetic appearance of fresh produce, and social and environmental considerations such as fair trade standards (1,23,58,65,67,68,71–76,80,94,95).

Nutritional quality

Supermarkets impact negatively on public health nutrition by selling products with poor nutritional quality (61,100) and encouraging consumption of these foods (1,22,95). They promote consumption of unhealthy foods via pricing, placement and promotional strategies (95). Interventions to restrict availability of these unhealthy foods have been proposed as a measure to increase healthy eating (34). Supermarkets can also positively affect population dietary intake by making fresh, healthy foods more available, affordable and accessible (1). Supermarkets have control over own brand products and can determine the choice of ingredients and nutritional content (55) (Table S2). This presents an opportunity for public health professionals to work with supermarkets to improve the nutritional quality of the food supply (34).

Food cost and affordability

Supermarkets determine food prices, which is an important strategic decision for the chains (1). The focus of supermarkets on price, which has been promoted as consumer driven, has resulted in an average drop in food prices (104,105). Supermarkets influence population dietary intake by the prices they charge (95), and reducing prices for healthier products was identified by public health researchers as a promising strategy to improve supermarket food environments (34). However, supermarkets' emphasis on providing cheap food (70) and their drive to compete based on low prices has led to compromises over animal welfare standards (68). The affordable low prices of supermarket own brands drives

branded food producers to compete on price, and some cheapen the quality of ingredients to do this (78).

Accessibility

Supermarkets determine the location of stores (1), and their presence generally makes a positive impact on population diets by increasing the proportion that can access affordable foods (95). Supermarkets also decide how much space is allocated for each product (1), and where food items are placed within stores (34), or located on shelves (85). Supermarkets have allocated own brands premium eye-level shelf positions (92). Supermarkets also make decisions about what foods will be placed in prominent locations such as ends of aisles or checkouts (34,100).

Food preferences and choices

Supermarkets state they supply the products that their customers want, but the reality is that they shape the food choices and preferences of consumers (100). They influence food choice by predetermining what products are available (63), and shaping norms and values around foods that meets modern lifestyle needs (60). Supermarkets have been the main driver of the requirement for standardized, cheaply produced foods (55), which may diminish local food cultures (25). They also affect food choice by developing own brand products (55). Growth of supermarket own brands and a strategy of selling only one or two branded alternatives limits consumers' food choice, which could be detrimental if products are of lower quality (77). Overall, supermarkets shape the food environment in which consumers select foods (1) with no positive impacts identified.

Sustainability

Supermarket quality standards and CSR do not adequately address sustainability, and all impacts identified were negative. For example, supermarket zero waste initiatives simply push the problem onto other actors without addressing waste throughout the whole food system (59). Similarly, supermarkets' flexible supply arrangements with fresh produce growers, who have to plan for the maximum order quantity, create high wastage when the produce is not required (59). Supermarkets' focus on cosmetic appearance along with other food quality attributes also contributes to food waste and has led to a loss in species diversity (73). Supermarkets have shifted the public debate away from establishing acceptable animal welfare standards to letting consumers choose based on product labelling (72).

Availability

Supermarkets determine what food is available in stores, which influences what food is produced (1). They appear to offer consumers choice but do not provide the information needed to inform those choices (70). For example, supermarket quality standards enforced with suppliers are typically not communicated to consumers (94). They also provide very little information about animal welfare standards (70). Supermarkets aim to meet consumer demand for ready prepared foods, and own brands have driven product innovation in ready-to-eat convenience foods, and ethically sourced foods (53,71).

Strengths and limitations

Strengths of this study include the synthesis of evidence from many sources, including grey and peer-reviewed literature, spanning many disciplines. The search strategy identified diverse documents that reported sources of supermarket power. These documents were also examined using a public health lens to understand the implications of supermarket power. This Australian study is the first of its kind examining the implications of supermarket power and could indicate similar situations in other developed countries. Limitations include the possibility that the search strategy did not capture all relevant documents, and that the current study has therefore overlooked some aspects of supermarket power or public health implications. Given the focus of this review on identifying gaps in knowledge to make recommendations for further research, future action to hold supermarkets to account by government, consumers or other food system actors are not discussed. Consistent with the scoping review protocol adopted, the quality of included documents was not assessed.

Conclusions

This scoping review revealed that supermarkets hold a powerful position in the Australian food system, acting as the primary gatekeepers. Supermarkets have obtained instrumental, structural and discursive power from many sources that overlap and reinforce each other. Main sources were high market concentration, the ability to set the terms of trade for suppliers, governance of the food system via private quality standards, development of supermarket own brands and framing issues around the identities of food system actors and societal norms. Political legitimacy of supermarket power has been achieved through their authority status, and government and consumers have failed to challenge their unelected leadership of the food system. A number of gaps in the literature have been identified, including lack of examination of supermarkets' influence over PPP initiatives that potentially impact the health of all Australians; supermarket CSR as a source of power, and the potential impact on public health outcomes including obesity; and whether their power allows supermarkets to influence public health in different ways to other food system actors. There is very little public health research

examining the impact of supermarket power in Australia, which is surprising given the dominance of only two major supermarket chains.

Supermarket power impacts food governance, by influencing policy and setting private rules; the food system, by influencing livelihoods and the sustainability of communities; and public health nutrition, by influencing the availability, affordability, accessibility and sustainability of healthy foods in Australia. Although an enormous benefit of supermarket power has been provision of cheap, safe food, there were few positive impacts identified overall, providing many opportunities for improvement. To create food environments supportive of healthy choices and improved health outcomes (i.e. reduce obesity, non-communicable diseases and their inequalities), it is important for the power of supermarkets to be transparent, and for them to be held accountable for their impacts on public health. In particular, further research to examine supermarket own brands is needed, owing to their pivotal role as a source of supermarket power and their potential to improve public health.

Conflict of interest statement

No conflict of interest was declared.

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Supporting information

Additional Supporting Information may be found online in the supporting information tab for this article. https://doi.org/10.1111/obr.12635

Table S1: Summary of information that describes supermarket own brands as a source of supermarket power in Australia

Table S2: Summary of the information that describes the impact of supermarket own brands on public health

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