

Perspectives

A guide to policy analysis as a research method

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Summary

Policy analysis provides a way for understanding how and why governments enact certain policies, and their effects. Public health policy research is limited and lacks theoretical underpinnings. This article aims to describe and critique different approaches to policy analysis thus providing direction for undertaking policy analysis in the field of health promotion. Through the use of an illustrative example in nutrition it aims to illustrate the different approaches. Three broad orientations to policy analysis are outlined: (i) *Traditional* approaches aim to identify the ‘best’ solution, through undertaking objective analyses of possible solutions. (ii) *Mainstream* approaches focus on the interaction of policy actors in policymaking. (iii) *Interpretive* approaches examine the framing and representation of problems and how policies reflect the social construction of ‘problems’. Policy analysis may assist understanding of how and why policies to improve nutrition are enacted (or rejected) and may inform practitioners in their advocacy. As such, policy analysis provides researchers with a powerful tool to understand the use of research evidence in policymaking and generate a heightened understanding of the values, interests and political contexts underpinning policy decisions. Such methods may enable more effective advocacy for policies that can lead to improvements in health.

Key words: mainstream policy analysis, interpretive policy analysis, sugar sweetened beverage tax, public health, nutrition

THE ROLE OF POLICY ANALYSIS IN HEALTH PROMOTION

Creating healthy societies through policy initiatives has been a key function of public health for over thirty years (Milio, 1981; Considine, 1994). The World Health Organization (WHO) confirmed the critical role of

building ‘healthy public policy’ in its Ottawa Charter for Health Promotion (World Health Organization, 1986) and Adelaide Recommendations (WHO, 1988). However, it is well documented that public health evidence is often not translated into policy (Bowen and Zwi, 2005; De Leeuw *et al.*, 2008; Buse *et al.*, 2012).

Therefore, there is a need to analyse policy in order to understand ‘how and why certain policies come to be developed in particular contexts, by who, for whom, based on what assumptions and with what effect’ (Blackmore and Lauder, 2005, p. 97).

Policy skills have been identified as core functions for the health promotion workforce (Hughes, 2003). Literature from the social sciences provides theories and frameworks which can inform the analysis of policy processes (Sabatier and Weible, 2014; Peters and Zittoun, 2016). Despite this, recent reviews have revealed that few studies make use of existing theoretical frameworks in health promotion research (Breton and De Leeuw, 2011; Cullerton *et al.*, 2015; Clarke *et al.*, 2016).

While some such policy analysis appears in the health promotion literature (Thuraisingam *et al.*, 2009; Baker *et al.*, 2017), the reason for the limited policy research in this field may be due to a lack of knowledge and understanding of policy analysis. Analysing policy is far from straightforward because there is little agreement about what public policy is and how it can be investigated and understood (Sabatier and Weible, 2014; Peters, 2015), with different approaches based upon diverse theoretical and methodological assumptions. There is a paucity of resources to guide health promotion researchers and practitioners in conducting policy analysis (Collins, 2005; Coveney, 2010; Clarke *et al.*, 2016), and what does exist often fails to provide a sense of the overarching theoretical orientations to policy and the analytical approaches available (Breton and De Leeuw, 2011). Better guidance on approaches to doing policy-oriented health promotion research are required.

This article supports the call for theory-informed policy analysis as a valuable research method in health promotion (Breton and De Leeuw, 2011). It describes and critique different orientations and approaches to policy analysis thus providing direction for undertaking policy analysis in public health research. Through the use of a specific, illustrative policy example, it provides direction for using policy analysis in practice.

ORIENTATIONS AND APPROACHES TO POLICY ANALYSIS

This section describes how policy can be analysed, recognizing that there are diverse ways in which policy scholars conceptualize and categorize the study of policy (Bacchi, 1999, 2009; Colebatch, 2006; Sabatier and Weible, 2014; Peters and Zittoun, 2016). To help make sense of this diversity, we suggest it is useful to think of there being three broad orientations to policy

research—*traditional, mainstream and interpretive*—within which various specific approaches can be situated. Our adoption of this three-element typology is informed by Colebatch (2006) and Bacchi (1999) (Table 1) as other compilations of policy theories provide little direction in terms of defining conceptualizations of policy (Sabatier and Weible, 2014; Peters and Zittoun, 2016). Both Colebatch (2006) and Bacchi (1999), on the other hand, provide typologies based on the ontological and epistemological assumptions on which each approach rests. Given that such features are essential to aligning methods with research questions, we follow their organisational typologies. While the respective typologies do not completely align, they provide a way to distinguish between orientations that are firmly positivist from those that are more constructionist/interpretivist. In doing so, it is acknowledged that such categories are coarse and imprecise and that not all approaches fit neatly into these black and white categories. For example, Colebatch (2006) views the policy cycle as firmly within the category of authoritative choice, whereas with Bacchi (1999, 2009) it is not as clear cut: she would consider applications of the policy cycle as linear and rational, but not necessarily comprehensively rational.

Colebatch (2006) suggests that three broad orientations to policy can be distinguished by the degree to which the focus is on how policy is formed, as either: an *authoritative choice*—where policies consist of rational, instrumental choices made by leaders in positions of authority and the implementation of these choices; a *structured interaction*—where policy is a process of interaction between a range of bodies with particular specialized interests, mostly inside government, or; a *social construction*—where policy development is based on ‘problematization’, a particular way of identifying situations as normal or problematic, justifying the involvement of government, validating claims to legitimate expertise and applying appropriate ‘technologies of governing’ (Colebatch, 2006, pp. 39–40).

Bacchi (1999) classifies policymaking according to the way authors deal with policy problems, where the focus is on the epistemological assumptions underpinning the management of policy problems. For Bacchi there are three broad orientations (Bacchi, 1999). The first two are directly concerned with problem solving and improving policymaking, while a third focuses upon problem representation, as follows:

1. Problem solving;
 - a. problem identification (comprehensive rationalist),
 - b. problem definition (political rationalist), and;
2. Problem representation (interpretivist).

Table 1: Comparison of the major orientations to policy analysis

Orientations to policy analysis	Analytical focus	Type of research questions	Theoretical frameworks	Data sources and methods	Major Sources
Traditional	Facts	Outcome questions How can this policy problem be solved; what is the optimal solution?	Economic frameworks; Basic scientific models; Behavioural psychology	Quantitative modelling; economic analyses; cost-benefit analysis; nudge politics; policy cycle model	Cochrane reviews (Cochrane Library 1999–2017); OECD reports [Organisation for Economic Co-operation and Development (OECD) 2016]ACE prevention (Vos <i>et al.</i> , 2010)
Mainstream	Values Actors Political rationality	Interaction questions What values are at stake; whose voices are heard? How is political priority generated?	Policy cycle; policy triangle; punctuated equilibrium; multiple stream theory; advocacy coalition framework	Interviews; document analysis; surveys	Collins (2005), Hill (2009), Sabatier and Jenkins-Smith (1999), Walt and Gilson (1994)
Interpretive	Meanings	Representation questions How is the policy problem defined or constructed; what assumptions underpin the problem framing?	What’s the problem represented to be; framing; governmentality	Interviews; document analysis; ethnographic methods; historical methods; discourse analysis; narrative analysis	Bacchi (2009), Yanow (2000), Fischer (2003), Martson and Mcdonald (2006), Hajer and Laws (2006)

For Bacchi, the distinction between these three (Bacchi, 2009, p. 39) orientations is in the focus of inquiry: facts as the focus of policymaking (comprehensive rationalist); which values are reflected in policy (political rationalist); and how meaning is created (interpretivist). In the following section, we combine these two loosely overlapping classifications into a practical framework that can be used to locate research on the basis of analytical focus, types of research questions pursued and theoretical frameworks. We regard these as ‘traditional’, ‘mainstream’ and ‘interpretive’ that respectively capture the essence of Colebatch’s and Bacchi’s accounts.

As the examples within our typology will demonstrate, some policy analysis approaches can be seen to span types when the focus is on how ‘problems’ align with ‘politics’ to allow a particular ‘policy’ to be achieved. This reveals the permeability of the boundaries between our three orientations. Their defining features are outlined in Table 1, although obviously our typology is a guide rather than a set of discrete categories with impermeable boundaries. For example, mainstream studies focus on political rationality, which is often associated with incrementalism and the interplay between different policy actors, whereas the interpretivist approach is focused on different ways of understanding the world and representing problems in policy (Bacchi, 1999).

Traditional policy studies

‘Traditional’ policy studies embrace a ‘scientific’ approach to the identification of problems and their solution. Under this orientation, policy analysis involves deploying a rational comprehensive approach to problem solving, in a world that is objectively knowable. Using Bacchi’s parlance, the focus is exclusively (Bacchi, 1999) on scientific ‘facts’, reflecting a positivist research paradigm whereby an objective and value-free analysis is provided (or at least the analysis is portrayed as being objective and value-free). Under such an orientation, policy is viewed as an authoritative choice, following a linear, staged problem solving activity that provides optimal solutions to policy problems (Colebatch, 2006). Assuming an absence of political forces, within Colebatch’s framework, the optimal solution could then be taken up by individuals with authoritative choice. This orientation highlights that policy analysis should be ‘objective’ rather than ‘political’, whereby the role of policy analysis is to identify the best solution, through objective analyses, which identifies possible policy options and weighs up their pros and cons. Technocratic methods such as cost-benefit analysis, risk assessment, operations research, and program planning and budgeting systems, are examples of traditional approaches (Althaus *et al.*, 2013), as is the policy cycle model (Colebatch, 2006).

A health promotion example is the Australian Assessing Cost Effectiveness (ACE) in Prevention study (Vos *et al.*, 2010). This project aimed to provide a comprehensive modelling of various preventative health interventions in order to inform policymakers about the measures likely to be most effective and the best value for money. The study produced a 'league table' displaying the relative cost-effectiveness, expressed in cost per DALY averted, of a range of policy options for addressing the burden of non-communicable diseases in Australia.

Despite the fact that regulatory and fiscal policy interventions were found to be more cost-effective than educational or clinical interventions, they were not adopted by the Australian Government. The reports suggest that 'such interventions should only be ignored if decision-makers have very serious reservations about the evidence base or are facing insurmountable problems in relation to stakeholder acceptability or feasibility of implementation' (p. 4). In doing so, the authors acknowledge that while regulation and taxation may have a low financial cost, these interventions have political costs and are unlikely to be adopted without political will. This illustrates that while traditional policy studies can provide useful evidence, they do not provide information about how governments make use of such evidence or how political will for interventions that may be opposed might be generated. Mainstream policy studies take up this challenge.

Mainstream policy studies

The mainstream orientation embodies studies of agenda-setting, policy processes, policy networks and governance, in which policy is not conceptualized as a comprehensively rational, linear process but broadly seen as 'the interaction of values, interests and resources guided through institutions and mediated through politics' (Davis *et al.*, 1993, p. 15). These approaches to policy analysis feature prominently in policy texts (e.g. Sabatier and Weible, 2014; Peters, 2015) and, for this reason, we have labelled them as 'mainstream'. Table 2 summarizes some of the major approaches to mainstream policy studies.

One commonly used framework in mainstream policy studies is the Multiple Streams Theory (Kingdon, 1984). According to this theory, policy change occurs when advocates, known as 'policy entrepreneurs' match problems with policy solutions in a politically favourable environment. Usually, the 'problem', 'policy' and 'politics' streams run separately and concurrently, however, when a policy entrepreneur couples the three streams together, a 'policy window' opens. This theory

has been applied to health policy analyses, including childhood obesity prevention (Craig *et al.*, 2010), taxing sugar-sweetened beverages (Mosier, 2013), and food and nutrition policies (Yeatman, 2003; Caraher *et al.*, 2013). For example, Craig *et al.* used Multiple Streams theory to analyse (Craig *et al.*, 2010) the key factors that elevated childhood obesity on the policy agenda in Arkansas, allowing the passage of legislation for comprehensive school-based obesity prevention initiatives. The research involved key informant interview about the events, policy entrepreneurs and process that led to the development of the policy. Interview data were coded into the main thematic categories of the theory: problems, policies, politics, policy entrepreneurs and policy window, finding that key events within the problem and political streams produced a policy window. Public health practitioners then acted as policy entrepreneurs by proposing viable policy solutions to those championing the issue within government.

Another mainstream approach is the Advocacy Coalition Framework (Sabatier, 1988). Analyses using this theory focus on the coalitions of actors that form within a 'policy subsystem', based on shared values and beliefs, to advocate for certain policy positions. According to this theory, policy change occurs either as a result of external events (e.g. change in socioeconomic conditions, Government or some kind of disaster), internal subsystem events (such as policy failures, crises or scandals), negotiated agreement between coalitions or through 'policy-oriented learning', whereby the beliefs of policy actors are changed (Pierce *et al.*, 2017). Johnson *et al.* used this framework to analyse (Johnson *et al.*, 2012) the policy process surrounding the introduction of menu-labelling regulations. Stakeholders were interviewed to generate information about each of the framework's key variables, including: the policy subsystem, stable parameters, external events, policy beliefs, and the role of technical knowledge and policy-oriented learning in facilitating policy change.

A further mainstream method is policy network analysis (Parsons, 1995). This involves analysing the number and type of connections between actors in a policy network in order to understand the overall structure of the network and the ways in which actors use their position in the network to influence policy. Cullerton *et al.* used network analysis to map (Cullerton *et al.*, 2016) the relationships between the various stakeholders involved in national nutrition policy in Australia. This approach demonstrated that food industry actors held much more powerful positions in the network than nutritionists, who had limited access to decision-makers. The analysis also highlighted the individuals who were

Table 2: Major mainstream and interpretive approaches to policy analysis

Approach and key authors	Purpose, assumptions and principles	Key elements and processes
Advocacy coalition framework (Sabatier and Jenkins-Smith, 1999)	Analyses policy change and stability over time focusing on the ways in which different advocacy coalitions come together in particular policy subsystems.	Analysis focuses on: • core beliefs; • advocacy coalitions, identifying actors who share particular beliefs; • policy learning, focusing on different interpretations of facts and events in different coalitions as a result of policy implementation; • policy subsystems, which describes the context in which policy contestation occurs.
Institutionalism (March and Olsen, 1983, 1996; Ostrom 1999; Lowndes, 2002; Young, 2002)	Institutional analysis is predicated upon the idea that institutions matter, in the sense that institutions such as family, church, government and legal systems can be relatively stable over time, and exert an influence over the ways interests may be structured and the processes by which issues may be responded to	Ostrom's Institutional Analysis and Design (1999) is one high profile approach to institutionalism. As part of it Ostrom proposes eight design principles which if met means that self-organizing collaborative governance is possible. • Boundaries of users and resource are clear • There is congruence between benefits and costs
Multiple streams (Kingdon, 1984)	Assumes that problem identification, policy solutions and political processes are relatively independent streams of policy activity.	Analytical focus is on: • Policy windows are situations where it is possible to work across the three policy streams • Policy entrepreneurs are actors who play a key role in connecting across the policy streams • Agenda setting
Policy network analysis (Scott, 1991; Wasserman and Faust, 1994; Parsons, 1995; Selman, 2000)	'Network analysis is based on the idea that a policy is framed within a context of relationships and dependencies' (Parsons, 1995, p. 185). To understand the relationships between people in social systems and how these relationships inform policy. There are a range of approaches to defining and investigating networks.	The analysis of networks seeks to unearth structural patterns that exist among stakeholders, in order to examine the relations between them, how they are positioned and how relations are structured into overall network pattern. The characteristics of networks are often discussed in terms of network density (the number and intensity of connections); network cohesion (the number of separate network components); network centralization (the closeness of ties between core actors); and connectivity (to other networks). Practically, such concepts are useful for exploring issues such as the structure of networks and relative influence of various individuals. Indicative questions include: • Who are the participants (policy actors)? • What are their resources and strategies? • Who are the insiders (core) and outsiders (periphery)? • What coalitions and alliances are evident? • Which are most influential?
Policy triangle (Walt and Gilson, 1994)	Assumes that an understanding of policy should be informed by an analysis of policy context, content,	An analysis would provide an integrated account of the interplay between policy content,

(continued)

Table 2: Continued

Approach and key authors	Purpose, assumptions and principles	Key elements and processes
Punctuated equilibrium (Baumgartner and Jones, 2010)	process and actors. The assumption is that when too much focus is given to one area over the other three, for example the content of health policy rather than the process of decision-making; policy analyses will fail to account for the complexity of policymaking and fail to understand why some policy approaches are taken up and others not. Based on the assumption that policies are relatively stable over time unless disturbed by external factors.	context, process and actors for a particular policy issue. The aim of such analyses is to explain policy stability and their continuation or discontinuation on the absence or basis of external shocks. Analyses examining punctuated equilibriums focus on: • Bounded rationality: how policymakers attend to or give less attention to particular policies • Agenda setting: the way that different actors seek to bring more or less attention to issues of importance to them • External shocks: how external forces place more attention on particular policy issues • Framing: the ways in which issues are understood, defined and categorized within existing knowledge frameworks
Narrative policy analysis (Roe, 1994)	Draws on insights from literary theory. The approach is underpinned by the objectives to: 'underscore the important and necessary role that policy narratives have in public policy' and 'establish the usefulness of narrative analytical techniques' in 'reformulating intractable policy problems'.	Narrative policy analysis involves the following steps, covering: • Definition of dominant story and identification of those policy narratives with high uncertainty (narratives, arguments) • Identification of other narratives in the issue that do not conform to the dominant narrative • Compare the two sets of narratives in order to generate a meta narrative • Determine how the metanarrative recasts the problems in such a way as to make it more amenable
Frame reflexive policy analysis (Rein and Schön, 1993)	Framing is a way of selecting, organizing, interpreting and making sense of a complex reality to provide goal posts for knowing, analysing persuading and acting.	The focus of the analysis is on: • Policy discourses • Policy forums, which are the settings in which policy discourse occurs • Rhetorical frames • Action frames, which locate practice and implementation • Policy frames for a specific policy situation • Institutional frames that shape institutional understandings and interpretations • Meta-cultural frames which include broad, culturally shared systems of belief that shape rhetorical and institutional frames.

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Table 2: Continued

Approach and key authors	Purpose, assumptions and principles	Key elements and processes
Argumentative discourse analysis (Hajer, 1995; Hajer, 2006)	Based upon the assumption that language profoundly shapes our view of the world and reality, instead of merely being a neutral medium mirroring it. The analyst therefore should examine how the definition of the political problems relates to the particular narrative in which it is discussed (2006, p. 66)	• Discourses • Storylines • Discourse coalitions • Discursive space • Discourse structuration • Discourse institutionalization
What's the problem represented to be (Bacchi 1999, 2009)	A way of studying policy which opens up a range of questions that are seldom addressed in other approaches: how every proposal necessarily offers a representation of the problem to be addressed, how these representations contain presuppositions and assumptions which often go un-analysed, how these representations shape an issue in ways which limit possibilities for change. It also offers a framework for examining gaps and silences in policy debates by asking what remains unproblematised in certain representations (Bacchi, 1999, p. 12).	• What's the problem represented to be in a specific policy? • What presuppositions or assumptions underlie this representation of the problem? (Foucauldian archaeology)—key concepts, binaries and categories • How has this representation of the 'problem' come about? (Foucauldian genealogy)—practices and processes that made this representation dominant • What is left unproblematic in this problem representation? What are the silences? Can the problem be thought about differently? • What effects are produced by this representation of the problems? (discursive, subjective and lived effects) • How? Where is this representation of the problem produced, disseminated and defended? How could it be questioned, disrupted and replaced?
Governmentality (Harris, 2001; Martson and Mcdonald, 2006)	A way of thinking about the nature and practice of government. What is governing, who can govern and who is being governed and how?	The analysis focuses on how social actors act upon themselves and are acted upon by other agents to produce desired outcomes. This can be achieved through a focus on: • Political rationalities • Technologies of governing, such as forms, processes, rules, micro-practices • How regimes of truth are authorized, enacted and sustained

strategically positioned to act as ‘policy brokers’ within the network (Cullerton *et al.*, 2017). Table 2 summarises the major traditions in mainstream policy studies.

Interpretive policy studies

In recent decades, a substantial body of social science literature has developed around the idea that reality is socially constructed and that language and discourse have an important role in shaping the way in which social reality is created (Fischer and Forester, 1993; Roe, 1994; Bacchi, 1999; Yanow, 2000; Colebatch, 2002; Fischer,

2003; Hajer and Wagenaar, 2003). Here, the third category within both Colebatch’s and Bacchi’s frameworks align. Hastings identifies two implications for (Hastings, 1998) policy studies across the policy problem and policymaking domains: first, policy problems are not pre-existing givens, but are historically and culturally produced. Second, the policy process is understood as a process of discourse and argumentation (Hastings, 1998). For the purpose of this article, the focus of interpretive policy analysis is on problem representation, and how the framing of the policy problems shapes the array of possible policy responses (Rein and Schön, 1993;

Bacchi, 1999). For a more complete account of interpretive policy studies, we direct readers to recent contributions by Fischer and colleagues (Fischer *et al.*, 2015) and Behagel and colleagues (Behagel *et al.*, 2017).

An interpretive approach has been adopted in several public health studies. Focusing specifically on nutrition, Bacchi's (Bacchi, 2009) 'What's the problem represented to be?' framework has been used to examine the ways in which different stakeholders represent policy problems such as childhood obesity (Bastian, 2011), food insecurity (Bastian and Coveney, 2013) and folic acid fortification (Begley and Coveney, 2010). The ideas and frames deployed by nutrition policy actors during policy development process have been identified by analysing stakeholder submissions to government inquiries and consultations. For example, Olsen *et al.* analysed public submissions to an (Olsen *et al.*, 2009) Australian Government inquiry into obesity and identified that the majority of actors framed obesity either as an individual or a structural issue with relatively few suggesting that obesity policy should address the issue of social inequality (Olsen *et al.*, 2009). Table 2 summarizes the major traditions in interpretive policy studies.

The preceding section outlined three broad theoretical orientations to how policy can be understood and analysed. In doing so, we acknowledge that this list is necessarily incomplete and that there are a variety of other approaches.

To illustrate the relevance of these policy approaches within the field of health promotion, in the next section we focus on nutrition as a discrete area of policy that provides a good range of examples across all three approaches to policy analysis (traditional, mainstream and interpretive) and is an active area for policy research and advocacy. This demonstrates how the three different orientations may be applied in practice.

ILLUSTRATIVE EXAMPLES OF RUDIMENTARY THEORY-BASED POLICY ANALYSIS

In this section we present examples of hypothetical mainstream and interpretivist policy analyses to provide a preliminary indication of how such approaches could be taken up. We aim to demonstrate how these frameworks could be applied to health promotion research by drawing on the taxation of sugar-sweetened beverages as a highly topical and illustrative example. While an article format limits the depth into which each method and example can be discussed, we seek to focus readers' attention on the ways in which different kinds of policy

theory ask different questions and privilege different aspects of policy processes. Before describing what each policy analysis approach could contribute to the analysis of a complex issue, such as nutrition, we briefly contextualize this policy issue, and the failure of traditional policy approaches.

In 2016, the United Nations declared the commencement of a Decade of Action on Nutrition (WHO, 2016). Governments are being called on to implement policy actions to combat all forms of malnutrition. To date, only limited progress has been made towards implementing policies that aim to improve public health nutrition and prevent obesity (Roberto *et al.*, 2015). Therefore, as this decade unfolds, the actions (or inaction) of governments to address population nutrition challenges deserves close scrutiny in order to ensure agreed goals and targets are achieved.

With growing rates of obesity and soft drink consumption, taxation on sugar-sweetened beverages has been proposed by public health experts as a strategy for reducing consumption. It has been suggested that taxes on sugar-sweetened beverages could form part of multi-strategy, multi-sectorial obesity interventions (Grattan Institute, 2016). This has followed public health and economic research (Andrejeva *et al.*, 2010; Powell *et al.*, 2013) and the WHO's recommendations regarding the use of economic tools such as taxes and subsidies to encourage consumption of healthy food products (WHO, 2008). Evidence suggests that taxing sugar-sweetened beverages has the potential to effectively reduce consumption, decrease sales of unhealthy beverages and influence demand for healthier choices. Such a policy would signify government recognition that these products are of concern for public health and contribute to revenue raising for other health promotion initiatives.

Modelling studies have demonstrated that a 20% tax in Australia may contribute to a 12.6% decline in consumption and a decline in obesity of 2.7% in men and 1.2% in women (Veerman *et al.*, 2016). Thus, according to the traditional approach, in which policy is conceptualized as a rational comprehensive process, one would expect this policy to have been adopted. However, mainstream approaches could reveal the significant role played by the beverage industry in opposing such taxation and the strategies used to de-legitimize policy action on this issue. Interpretive approaches could then reveal the industry's framing of a tax on sugar-sweetened beverages as a new policy problem.

Industry lobbyists argue that health will not improve as a result of a tax but rather cost jobs and disadvantage low income groups (Coyle, 2017). Similarly, proposals for targeted excise taxes have been rejected by the

Table 3: Comparison of examples of policy analysis strategies in the conduct of a hypothetical project on taxing sugar-sweetened beverages

Framework	Research question	Focus and instruments of policy analysis	Type of results
<i>Mainstream approaches</i>			
Multiple streams theory	Who is the policy entrepreneur? How can the 'problem' (e.g. obesity) be matched with the policy (e.g. tax) in a politically favourable environment?	Key events in the 'problem', 'policy' and 'politics' streams that led to tax being enacted. Actions of key individuals 'championing' the introduction of a tax.	Identification of the conditions which produced a policy window. Ways of defining the policy problem that make taxing SSB politically palatable. Insight into which actors were 'policy entrepreneurs' and how the three streams were coupled together.
Punctuated equilibrium	How have exogenous factors influenced policy change regarding the taxation of sugar-sweetened beverages	External shocks to policy arrangements; path dependency (how decisions have been made in the past effect current situation); exogenous factors.	How the debate over childhood obesity changed from one of individual responsibility to the economic costs to the health system imposed by sugar-sweetened beverages and how this change facilitated radically new policy opportunities after many years of incrementalism.
Advocacy coalition framework	Who are the members of the coalitions lobbying for and against a tax on sugar-sweetened beverages? What are the core beliefs that underpin these opposing advocacy coalitions? When can 'policy-oriented learning' be achieved in this subsystem?	Changes in social, political or material conditions; openness of political system to change; opportunities available to policy actors to form coalitions and exploit social divisions.	A description of why, and around what shared beliefs, seemingly disparate actors came together to lobby for a tax on sugar-sweetened beverages, and how their lobbying was less uniform as the issue expanded to include childhood obesity and parental responsibility. The tactics deployed by the opposing coalition, led by food/beverage industry. How 'policy-oriented learning' was achieved?
<i>Interpretive approaches</i>			
What's the problem represented to be?	How was the 'problem' of sugar-sweetened beverages represented over the life of the policy-making process?	Official accounts of the policy problem and its solutions; competing accounts of the occurrence/development of policy; assumptions underpinning the various accounts; history of problem representation.	The causes of childhood obesity and the role of sugar-sweetened beverages put forward by health lobbyists and medical associations compared with competing representations put forward by fast food and beverage chains and other market-oriented interest groups. A comparison of the respective influence and uptake by government in their official accounts of the problem and the resultant solutions.
Framing	What are the frames through which the issue of sugar-sweetened beverages can be discussed, described or understood?	Official accounts of the policy problem; lay accounts; debates; media stories; competing accounts.	A description of the ways that sugar-sweetened beverages can be understood as a public health, economic, behavioural or social issue, any alignments between frames, and the uptake of these in official and lay accounts.

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Table 3: Continued

Framework	Research question	Focus and instruments of policy analysis	Type of results
Argumentative discourse analysis	What are the different ways that the policy problem and responses have been articulated and argued for? What traditions, power relations and knowledge structures do these discourses align with?	Official accounts; lay accounts; stakeholder texts; media stories; submissions to inquiries and other policy processes	An account of one or more ways that the issue of sugar-sweetened beverages, and resultant obesity, has been described by various stakeholders, such as in medial terms, as a nutritional issue, as a behavioural problem, as a social issue, as a problem of parents' moral irresponsibility, as a function of vulnerability and disadvantage. How do the argumentative strategies taken up by health versus market stakeholders align with hierarchies of knowledge and evidence?
Governmentality	How are the rationalities and technologies of governing consumption of sugar-sweetened beverages constructed and deployed?	Penalty and reward systems; categorizations of people or activities (inclusion/exclusion criteria); bureaucratic instruments.	How consumption of sugar-sweetened beverages is controlled, encouraged or discouraged by school canteen and sports club policies, sponsorship arrangements, television advertising regulations and fiscal levers such as excise and consumption taxes.

current Australian Government, whose core values include lower taxes, individual responsibility and support for business. Returning to our hypothetical examples, an interpretivist understanding of the industry's framing of the problem—of taxing sugar-sweetened beverages as an economic constraint on business—can make intelligible the government's rejection of this as a policy solution. In mainstream policy analysis terms, there may be greater shared values and beliefs between the beverage industry and the current Australian government than exists between health advocates and government members. Taken together, what this case study has shown is that there are various approaches to mainstream and interpretive policy analysis that could be applied by advocates and researchers in their work to understand and progress the development of 'healthy public policies' (World Health Organization, 1986) (Table 3).

What the illustrative examples also reveal is the diversity of analytical foci within the approaches. For example, within the select mainstream and interpretivist approaches presented, the analytical gaze can centre upon vastly different aspects of the 'who' (multiple streams theory; advocacy coalition framework), 'how' (multiple streams theory; punctuated equilibrium; what's the problem represented to be; governmentality), 'what' (advocacy coalition framework) or 'when'

(advocacy coalition framework) of policy activity. Each of these questions hold with them ontological and epistemological assumptions about the nature of social reality, policy and policymaking that should align with the researcher's research question and ultimate methodological choices. Here, prospective policy analysts should consider the philosophical nature of the policy problem and thus the research question they seek to address, and identify policy methods that are consistent with these assumptions. As Ragin (Ragin, 1999, p. 1140) suggests, 'in social research goals are primary: strategies and methods follow goals'. We hope that by presenting these illustrative examples, prospective analysts are provided sufficient grounding in policy traditions to identify philosophically congruent approaches that they can explore further and implement in their own policy research.

CONCLUSION

This article aimed to explain policy analysis as a valuable research method in health promotion. It summarized three key orientations to policy analysis—traditional, mainstream and interpretive, and, using nutrition as an example, detailed some of the major approaches that can be used. The authors suggest that

applying mainstream and/or interpretive orientations allows researchers and practitioners the opportunity to uncover how and why policy change occurs. Policy practitioners and researchers could use the mainstream approach analytically to identify relevant policy actors, their overlapping areas of agreement and potential areas of disagreement that would need to be addressed in the policy development process. Such approaches direct researchers and practitioners to look beyond the research evidence and consider the political rationalities underpinning policy processes. Similarly, an appreciation for interpretivist approaches sensitises the policy analyst to the fact that policy problems can be understood differently by different groups. Here, the way the policy is described, introduced and deployed as a means of individual freedom or social control, can have material implications for its success. Exploration of how policy problems are framed or conceptualized by political actors and in broader society provides the opportunity to rethink policy, research and advocacy efforts.

AUTHORS' CONTRIBUTIONS

C.P. conceptualized the idea of manuscript with input from J.B., B.C., K.C. and S.M. J.B. and B.C. drafted the manuscript and sought input and feedback from all authors who approved the final version of the manuscript.

REFERENCES

- Althaus, C., Bridgman, P., and David, G. (2013). *The Australian Policy Handbook*. Allen & Unwin, Sydney.
- Andreyeva, T., Long, M. W., and Brownell, K. D. (2010). The impact of food prices on consumption: a systematic review of research on the price elasticity of demand for food. *American Journal of Public Health*, 100, 216–222.
- Bacchi, C. (1999). *Women, Policy and Politics: The Construction of Policy Problems*. Sage, London.
- Bacchi, C. (2009). *Analysing Policy: What's the Problem Represented to Be?* Pearson, Sydney.
- Baker, P., Gill, T., Friel, S., Carey, G. and Kay, A. (2017). Generating political priority for regulatory interventions targeting obesity prevention: an Australian case study. *Social Science & Medicine*, 177, 141–149.
- Bastian, A. (2011). Representations of childhood obesity in Australian newsprint media and academic literature. *Australian and New Zealand Journal of Public Health*, 35, 135–139.
- Bastian, A. and Coveney, J. (2013). The responsibilisation of food security: what is the problem represented to be? *Health Sociology Review*, 22, 162–173.
- Baumgartner, F. and Jones, B. (2010). *Agendas and Instability in American Politics*. University of Chicago Press, Chicago.
- Begley, A. and Coveney, J. (2010). Wonder vitamin or mass medication? Media and academic representation of folate fortification as a policy problem in Australia and New Zealand. *Australian and New Zealand Journal of Public Health*, 34, 466–471.
- Behagel, J., Arts, B. and Turnhout, E. (2017). Beyond argumentation: a practice-based approach to environmental policy. *Journal of Environmental Policy and Planning*, 1. [Online], doi: 10.1080/1523908X.2017.1295841.
- Blackmore, J. and Lauder, H. (2005). Researching policy. In Somekh, B. and Lewin, C. (eds), *Research Methods in the Social Sciences*. Sage, London.
- Bowen, S. and Zwi, A. (2005). Pathways to “evidence-informed” policy and practice: a framework for action. *PLoS Medicine*, 2, e166.
- Breton, E. and De Leeuw, E. (2011). Theories of the policy process in health promotion research: a review. *Health Promotion International*, 26, 82–90.
- Buse, K., Mays, N. and Walt, G. (2012). *Making Health Policy, Maidenhead*. Open University Press, New York.
- Caraher, M., Carey, R., McConell, K. and Lawrence, M. (2013). Food policy development in the Australian State of Victoria: a case study of the Food Alliance. *International Planning Studies*, 18, 78–95.
- Clarke, B., Swinburn, B. and Sacks, G. (2016). The application of theories of the policy process to obesity prevention: a systematic review and meta-synthesis. *BMC Public Health*, 16, 1084–1102.
- Cochrane Library (1999–2017). *Cochrane Database of Systematic Reviews*. <http://www.cochranelibrary.com/cochrane-data-base-of-systematic-reviews/> (last accessed 1 May 2017).
- Colebatch, H. (2002). *Policy Berkshire*. Open University Press, Buckingham.
- Colebatch, H. (2006). Accounting for policy in Australia. *Public Policy*.
- Collins, T. (2005). Health policy analysis: a simple tool for policy makers. *Public Health*, 119, 192–196.
- Considine, M. (1994). *Public Policy: A Critical Approach*. MacMillan Press, Melbourne.
- Coveney, J. (2010). Analyzing public health policy: three approaches. *Health Promotion Practice*, 11, 515–521.
- Coyler, S. (2017). Sugar tax: what you need to know. *The Medical Journal of Australia*.
- Craig, R., Felix, H., Walker, J. and Phillips, M. (2010). Public health professionals as policy entrepreneurs: Arkansas's childhood obesity policy experience. *American Journal of Public Health*, 100, 2047–2052.
- Cullerton, K., Donnet, T., Lee, A. and Gallegos, D. (2015). Using political science to progress public health nutrition: a systematic review. *Public Health Nutrition*, 7, 1–9.
- Cullerton, K., Donnet, T., Lee, A. and Gallegos, D. (2016). Exploring power and influence in nutrition policy in Australia. *Obesity Reviews*, 17, 1218–1225.
- Cullerton, K., Donnet, T., Lee, A. and Gallegos, D. (2017). Joint the dots: the role of policy brokers in nutrition policy in Australia. *BMC Public Health*, 17, 307.

- Davis, G., Wanna, J., Warhurst, J. and Weller, P. (1993). *Public Policy in Australia*. Allen & Unwin, St Leonards.
- De Leeuw, E., Mcness, A., Crisp, B. and Stagnitti, K. (2008). Theoretical reflections on the nexus between research, policy and practice. *Critical Public Health*, 18, 5–20.
- Fischer, F. (2003). *Reframing Public Policy: Discursive Politics and Deliberative Practices*. Oxford University Press, Oxford.
- Fischer, F. and Forester, J. (1993). *The Argumentative Turn in Policy Analysis and Planning*. Duke University Press, Durham.
- Fischer, F., Torgerson, D., Durnová, A. and Orsini, M. (2015). *Handbook of Critical Policy Studies*. Edward Elgar Publishing, Cheltenham.
- Grattan Institute. (2016). A sugary drinks tax: recovering the community costs of obesity [Online]. Grattan Institute, Carlton, Victoria. Available at: <https://grattan.edu.au/report/a-sugary-drinks-tax-recovering-the-community-costs/> (accessed 13 April 2017).
- Hajer, M. (1995). *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process*. Clarendon Press, Oxford.
- Hajer, M. (2006). Doing discourse analysis: Coalitions, Practices, Meaning. In Brink van den, M. and Metze, T. (eds) *Words Matter in Policy and Planning: Discourse Theory and Method in the Social Sciences*, pp. 65–75. Utrecht.
- Hajer, M. and Laws, D. (2006). Ordering through discourse. In Moran, M., Rein, M. and Goode, R. (eds) *The Oxford Handbook of Public Policy*, pp. 249–266. Oxford University Press, Oxford.
- Hajer, M. and Wagenaar, H. (2003). *Deliberative Policy Analysis: Understanding Governance in the Network Society*. Cambridge University Press, New York.
- Hastings, A. (1998). Connecting linguistic structures and social practices: a discursive approach to social policy analysis. *Journal of Social Policy*, 27, 191–211.
- Hughes, R. (2003). Public health nutrition workforce composition, core functions, competencies and capacity: perspectives of advanced-level practitioners in Australia. *Public Health Nutrition*, 6, 607–613.
- Johnson, D. B., Payne, E. C., McNeese, M. A. and Allen, D. (2012). Menu-labeling policy in King County, Washington. *American Journal of Preventive Medicine*, 43, S130–S135.
- Kingdon, J. (1984). *Agendas, Alternatives, and Public Policies*. Little, Brown, Boston.
- March, J. and Olsen, J. (1983). The new institutionalism: Organisational factors in political life. *American Political Science Association* 78, 734–749.
- March J. and Olsen, J. (1996). Institutional perspectives on political institutions. *Governance* 9, 248–264.
- Martson, G. and McDonald, C. (2006). *Analysing Social Policy: A Governmental Approach*. Edward Elgar, Cheltenham.
- Milio, N. (1981). *Promoting Health through Public Policy*. FA Davis Co, Philadelphia.
- Mosier, S. (2013). Cookies, candy, and coke: examining state sugar-sweetened-beverage tax policy from a multiple streams approach. *International Review of Public Administration*, 18, 93–120.
- Olsen, A., Dixon, J., Banwell, C. and Baker, P. (2009). Weighing it up: the missing social inequalities dimension in Australian obesity policy discourse. *Health Promotion Journal of Australia*, 20, 167–171.
- Ostrom, E. (1999). Institutional rational choice: An assessment of the institutional analysis and development framework. Theories of the policy process P. Sabatier. Westview Press, Boulder, CO, pp. 35–71.
- Parsons, W. (1995). *Public Policy: An Introduction to the Theory and Practice of Policy Analysis*. Edward Elgar Publishing, Aldershot.
- Peters, B. (2015). *Advanced Introduction to Public Policy*. Edward Elgar Publishing, Cheltenham.
- Peters, B. and Zittoun, P. (2016). *Contemporary Approaches to Public Policy, Theories, Controversies, Perspectives*. Palgrave MacMillan, London.
- Pierce, J., Peterson, H. and Hicks, K. (2017). Policy change: an advocacy coalition framework perspective. *Policy Studies Journal*, 10.1111/psj.12223.
- Powell, L., Chriqui, J. F., Khan, T., Wada, R. and Chaloupka, F. J. (2013). Assessing the potential effectiveness of food and beverage taxes and subsidies for improving public health: a systematic review of prices, demand and body weight outcomes. *Obesity Reviews*, 14, 110–128.
- Ragin, C. (1999). The distinctiveness of case-oriented research. *Health Services Research*, 34, 1137–1151.
- Rein, M. and Schön, D. T. (1993). Policy discourse. In Fisher, F. and Forester, J. (eds), *The Argumentative Turn in Policy Analysis and Planning*, pp. 145–165. Duke University Press, Durham.
- Roberto, C., Swinburn, B., Hawkes, C., Huang, T., Costa, S., Ashe, M. et al. (2015). Patchy progress on obesity prevention: emerging examples, entrenched barriers, and new thinking. *Lancet*, 385, 2400–2409.
- Roe, E. (1994). *Narrative Policy Analysis: Theory and Practice*. Duke University Press, Durham.
- Sabatier, P. (1988). An advocacy coalition framework of policy change and the role of policy oriented learning therein. *Policy Sciences*, 21, 129–168.
- Sabatier, P. and Jenkins-Smith, H. (1999). The Advocacy Coalition Framework: An Assessment. In Sabatier, P. (eds), *Theories of the Policy Process*. Westview Press, Boulder, CO.
- Sabatier, P. and Weible, C. (2014). *Theories of the Policy Process*. Westview Press, Philadelphia.
- Thuraisingam, S., Riddell, L., Cook, K. and Lawrence, M. (2009). The politics of developing reference standards for nutrient intakes: the case of Australia and New Zealand. *Public Health Nutrition*, 12, 1531–1539.
- Veerman, J., Sacks, G., Antonopoulos, N. and Martin, J. (2016). The impact of a tax on sugar-sweetened beverages on health and health care costs: a modelling study. *PLoS One*, 11, e0151460.
- Vos, T., Carter, R., Barendregt, J., Mihalopoulos, C., Veerman, L., Magnus, A. et al. (2010). Assessing cost-effectiveness in prevention (ACE-Prevention): final report. [Online].

- University of Queensland, Brisbane and Deakin University, Melbourne. <https://public-health.uq.edu.au/research/centres/past-centres/assessing-cost-effectiveness-ace-prevention-study> (last accessed 17 July 2018).
- Walt, G. and Gilson, L. (1994). Reforming the health sector in developing countries: the central role of policy analysis. *Health Policy Plan* 9, 353–3570.
- Wasserman, S. and Faust, K. (1994). *Social Network Analysis: Methods and Applications*. Cambridge University Press, Cambridge.
- WHO. (1988). *Conference Statement of the 2nd International Conference on Health Promotion: The Adelaide Recommendations—Healthy Public Policy*. World Health Organization, Geneva.
- WHO. (2008). *2008–2013 Action Plan for the Global Strategy for the Prevention and Control of Noncommunicable Diseases*. World Health Organization, Geneva.
- WHO. (2016). *General Assembly Proclaims the Decade of Action on Nutrition* [Online]. World Health Organization, Geneva. Available at: www.who.int/nutrition/GA_decade_action (accessed 4 January 2017).
- World Health Organization. (1986). *The Ottawa Charter for Health Promotion. First International Conference on Health Promotion, Ottawa, 21 November 1986* [Online]. Ottawa, Canada. Available: <http://www.who.int/healthpromotion/conferences/previous/ottawa/en/> (accessed 4 August 2017).
- Yanow, D. (2000). *Conducting Interpretive Policy Analysis*. Sage, Thousand Oaks.
- Yeatman, H. (2003). Food and nutrition policy at the local level: key factors that influence the policy development process. *Critical Public Health*, 13, 125–138.