Attributing Outcomes to Social Policy Interventions – ‘Gold Standard’ or ‘Fool’s Gold’ in Public Policy and Management?

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Abstract

In recent years there has been increased interest in outcome-based social policy-making and management. The UK has been in the forefront of this movement but similar movements have been identified internationally. This interest in outcome-based decision-making has been given particular impetus through the ‘results’-based movement in evaluation and performance management since the 1980s, which has increased in scope over time, slowly changing its emphasis from cost reduction and measuring outputs to measuring outcomes. This change has been widely welcomed by policymakers, practitioners and academics. However, there is evidence that the reality is often rather less than the rhetoric. Moreover, the ‘attribution problem’ of attributing changes in outcomes to specific social policies has remained a major issue. The conceptual solution of constructing ‘cause-and-effect’ models, imported from the policy evaluation field, has only recently become common for operationalising these models. This article outlines the evolution of interest in outcome-based social policy-making up to recent times and the growing realization of the importance of the attribution problem. It then outlines both how the ‘cause-and-effect’ policy modelling approach can partially tackle the attribution problem, but also its inherent limitations. Lastly, the article uses several case studies in current UK social policy-making to demonstrate the potential importance of the reasoning embedded within cause-and-effect models but also the dangers in policy-making which adopts this approach without understanding its conceptual basis or in fields where it is inappropriate, given the current state of our knowledge of social policy systems.

Keywords

Outcomes; Evaluation; Attribution problem; Cause-and-effect models; Social policy objectives

Introduction

In recent years there has been increased interest in outcome-based social policy-making and management. The UK has been in the forefront of this
movement (ONS 2010), with the new UK Coalition government continuing the approach of the previous Labour administration, but similar movements have been identified in the USA (Moynihan 2005), Australia (Hoque 2008) and elsewhere in Europe (Pollitt and Bouckaert 2004).

This interest in outcome-based decision-making has been given particular impetus through the 'results'-based movement in evaluation and performance management since the 1980s, which has increased in scope over time, slowly changing its emphasis from cost reduction and measuring outputs to measuring outcomes (Audit Commission 1991; Heinrich 2002). This change has been widely welcomed by policymakers, practitioners and academics. However, there is evidence that the reality is often rather less than the rhetoric (Chamberlain et al. 2010). Moreover, the ‘attribution problem’ of identifying changes in outcomes arising from specific social policies has remained a major issue. The conceptual solution of constructing ‘cause-and-effect’ models, imported from the policy evaluation field, has only recently become common for operationalising these models.

This article outlines the evolution of interest in outcome-based social policy-making up to recent times and the growing realization of the importance of the attribution problem. It then outlines both how ‘cause-and-effect’ policy modelling approach can partially tackle the attribution problem, but also its inherent limitations. Lastly, the article uses several case studies in current UK social policy-making to demonstrate the potential importance of the reasoning embedded within cause-and-effect models but also the dangers in policy-making which adopts this approach without understanding its conceptual basis or in fields where it is inappropriate, given the current state of our knowledge of social policy systems.

**Putting Outcomes at the Centre of Public Policy Evaluation and Performance Management**

Concern with certain outcomes of public policy, for example mortality rates, longevity and the educational outcomes of schools, has featured in political debate since at least the 19th century. Health-related quality of life measures were developed and implemented by clinicians from the 1940s, although often crude (Donabedian 1966; Bowling 1995). From the 1950s, interest extended to more aggregate measures of well-being, including the standard of living (UN 1954) and quality of life (Andrews 1973).

This debate has not only involved policymakers and practitioners. An outcomes-based approach to public policy has been explicitly advocated in the academic literature since the 1960s. Levy, Meltsner and Wildavsky (1974: 1) argued that outcomes ‘are the “so what” of politics. . . . If outputs are what governments produce, outcomes are the grand design that citizens see behind those outputs’. Yet for a long time, this conceptual framework had little relevance in policy or practice.

From the 1980s onward, outcome measurement was given a strong boost with the turn to performance management in the public sector, emphasizing effectiveness, not simply economy and efficiency. As Smith (1996: 2) states: ‘the assessment of effectiveness is impossible without satisfactory measures of
outcome’. The emergence of public governance approaches in the 1990s further boosted the concern with outcomes. Stoker (2004: 205) argued that the highest tier of ‘governance failure’ is an inability to produce effective long-term outcomes. This concern was reinforced shortly afterwards by the widespread move towards evidence-based policy and management – Davies et al. (2000: 298) argue that: ‘One of the major challenges of establishing best evidence is doing so in terms of outcomes that are meaningful and relevant to the people who are affected by the interventions concerned’.

Consequently, in the last 20 years, outcomes have increasingly been identified for many public programmes and their measurement has been undertaken and tested in a variety of approaches (Smith 1996). For example, Chan (2004) reported that over 60 per cent of municipal governments in the USA and Canada in 2002 used outcome measures of customer satisfaction. In the USA in the 1990s, closely followed by Australia after 2000, ‘outcome-based education’ became widespread (Berlach and McNaught 2007). Since 2002, Australian federal and state mental health agencies have collaborated in gathering data according to a National Outcomes and Casemix Collection (NOCC) protocol. In 2008 the New Zealand Ministry of Social Development began to write all its contracts with providers in terms of outcomes. The role of outcomes in UK public services has also continued to grow. Relatively few indicators of outcomes were initially included in the Audit Commission’s evolving set of national standard performance indicators from the 1990s onwards. However, the recent National Indicator set of 198 indicators in 2008 contained a significant number of indicators which were claimed by government departments to assess achievement of important outcomes – the proportion was disputed but some put it as high as a third.

Two fields in particular have been particularly advanced in outcome measurement – health outcomes and quality of life measures in social policy. Bowling (1995: 11) suggested that ‘The measurement of health outcomes of clinical interventions has become a cornerstone of health services research and is also linked to the assessment of the appropriateness of health care interventions’. Moreover, there was steady progress in the construction and use of quality of life indices, such as EuroQol (EuroQol Group 1990) and the Qualy (‘Quality-adjusted life years’) (Weinstein and Stason 1976). Comparative research into socio-economic indicators of quality of life and general well-being reappeared strongly in the 1990s (Carr-Hill et al. 1996) and has taken on global political significance with the work of the Stiglitz Commission (2009) on the inadequacies of current measures of ‘social progress’. In some countries, this concern with well-being indicators has also led to an interest in assessing ‘happiness’ (Layard 2009), with the governments of Bhutan and Guandong province in China committing to measure a ‘General National Happiness’ Index, with which the UK government is also now experimenting (ONS 2012).

For all this interest, the operationalisation of an outcomes approach proved harder than initially hoped – for example, the Audit Commission (1991) in the UK noted that it had only had ‘modest success’ in altering the concentration in the public sector on inputs and outputs, rather than outcomes. Moreover, Dahler-Larson (2005) cautions that many ‘outcome mea-
sures’ are chosen by public agencies not because they really correspond to the quality of life improvements which the agency seeks but because they are easy to measure, fashionable, or sympathetically regarded by the controlling political group (or, we would add, in some cases because they are easy to game in performance management or evaluation). More fundamentally, setting outcomes as aspirations is not enough – effective policies have to be found to operationalise them. As Powell (2012) argues, the New Labour government in the UK was clear in the outcome targets it set for alleviation of child poverty and health inequality – it simply failed to meet them.

Pollitt and Bouckaert (2004) suggest in their international survey of public management that attempts to bring outcomes into public service decision-making have so far met with only limited success, partly due to the inherent difficulty of specifying outcomes, partly due to the poor measurement systems available to calibrate outcomes, and partly due to the difficulty of interpreting results based on outcomes, given that many influences other than public policy typically contribute to these outcomes – the ‘attribution problem’. Even the literature on health outcomes and quality of life indices has largely concentrated on overall levels of well-being, without much attempt to link them to specific government policies. Indeed, Pollitt and Bouckaert (2004: 118) state that they know no study of broad management reform programmes which convincingly linked actions taken with a set of positive and safely attributable final outcomes.

Dealing with the Attribution Problem: The Emergence of Cause-and-Effect Models

It has been recognized throughout this move to outcome-based social policy and management that it only works if we can deal with the attribution problem, i.e. the determination of the causes of outcomes, as opposed to the factors which are merely associated with outcomes.

Indeed, outcome-based policy and management has long been contested, precisely on the grounds that this attribution problem was unlikely to be solved. Simon (1957: xxxvi) emphasized that ‘high level goals provide little guide for action . . . decisions tend to be made, consequently, in terms of the highest level goals . . . to which action can be related in a fairly definite way and that provide some basis for the assessment of accomplishment’. In similar vein, Mintzberg (1987) (exploring organizational strategies rather than public policy) suggested that the frequent emergence of unintended outcomes (both positive and negative) – what he called ‘emergent strategy’ – meant that successful strategies may have no direct or clear link with their objectives. This message was picked up more recently in the evidence-based policy movement – Nutley and Davies (2000: 101–2) point out that ‘The problems associated with defining and measuring the final outcome of reduced recidivism have led several researchers to suggest that process compliance and intermediate outcomes (such as attitude change) should also be identified and measured’.

Nevertheless, the sceptics have not had their way in seeking to bury outcome-based policy and management. Both new public management and public governance have continued to insist on the need for identifying ‘high
level goals’, which later became increasingly interpreted as goals related to outcomes. This insistence continues to dominate the way in which social policies are publicly formulated, held to account in the public domain and formally evaluated. How can this be, given that the problems originally identified by Simon have not gone away?

One approach is suggested by Malley (2010), who has used detailed survey data, asking a set of questions about a person’s current social-care-related quality of life and another set of questions asking how that quality of life might differ in the absence of services, along with questions about other measures of need, such as ‘activities of daily living’ measures, so that, for clients with specified characteristics, a ‘value-added’ measure can be calculated for the outcomes of social care (Malley 2010: xi). While providing a useful ‘summative’ evaluation of social care interventions, this approach is ‘black box’ in nature – it provides no understanding of how social care (or any other pathway to outcomes) actually produces its effects and therefore gives no guidance on how social care initiatives might be redesigned to improve outcomes.

More generally, the attribution problem tends to be tackled (where it is not simply ignored) through reference to ‘cause-and-effect chain’ models. Indeed, the most often-quoted definition of organizational strategy sees it as a process of determining an organization’s goals and objectives and adopting defined courses of action and the resource allocation necessary to achieve them (Chandler 1962). Rooted in the rational instrumental approach, this assumes that objectives are well defined so that a direct and clear relationship can be established with the means designed to achieve them (Bakir and Todorovic 2010: 1042).

Of course, ‘evidence’ on what works is often contradictory, requiring judgement calls by decision-makers, which are likely to be based on ideology or on psychological predisposition towards evidence which confirms one’s prejudices. Nevertheless, seeking those causal connections which do seem in accord with the evidence continues to be a strongly defensible stance in social policymaking – as Powell (2011: 26) argues, despite the weaknesses of the rational, ‘stagist’ model of the policy process, stronger evidence (‘high quality, properly gathered and suited to the question at hand’) is better than weaker evidence.

Specifying this causal connection has been the driving force behind a long series of approaches to constructing models of the chain of cause-and-effect underpinning social policies and organizational strategies. The seminal thinking was by Drucker (1954) in his management by organizational objectives (MbO) approach, building on early work on goals by Simon (1947) and, in turn, giving rise to the means-end analysis of March and Simon (1958). Subsequent elaborations of cause-and-effect approaches have come in a variety of guises – for example hierarchies of objectives (Ansoff 1965), the ‘logical framework’ (often called ‘logframe’ or ‘the logic model’) in international development studies (Rosenberg and Posner 1979), the analytic hierarchy (Saaty 1980), ‘programme theory’ (Bickman 1990) or the ‘Bennett’s hierarchy’ variant (Bennett and Rockwell 1995), ‘strategy maps’ (Kaplan and Norton 2001, 2004), ‘policy maps’ based on cognitive mapping (Eden and Ackermann 2003), the ‘theory of change’ approach, developed at Aspen Institute but now very common in UK government policy evaluations (Sulli-
van and Stewart 2006), ‘Outcome- (or Results)-based accountability’ (Friedman 2007; NFER 2010) and ‘systems maps’ (Mulgan 2009).

The very variety of these models indicates a major underlying problem with this approach – it has still not become a standardized part of the policymaking process. Each model tends to be specific to and isolated within a particular policy sector or sub-sector. For example, even protagonists of the two most widely adopted approaches, the ‘log-frame’ and ‘strategy map’, make little reference to each other’s approaches.

While there has been increasing advocacy, and even use, of cause-and-effect models, it is important to recognize their limitations. They are not always based on well-thought out and tested theories (Brown 2010). Indeed, Hall (2002) suggests that the underlying causes of outcomes is rarely known to managers because the causal relationships they perceive have been learnt from outcome-irrelevant learning structures, have been subjected to judgement biases or conditioned beliefs, or have been selectively chosen to support the dominant coalition’s perspective.

**Cause-and-Effect Models of Social Policy: Putting the Theory to Work**

The fundamental logic behind cause-and-effect models for understanding outcomes was first set out rigorously by Ansoff (1965). He showed how the sets of objectives in an organization could be linked in a hierarchical model which cascaded down. In this approach, the objectives at the top of the model indicate the outcomes which the organization wishes to achieve for its users and other stakeholders. The achievement of these ‘outcome-oriented’ objectives is then linked to the achievement of the lower levels of objectives, which correspond to ‘service level’ objectives, and (lower still) to ‘logistical’ objectives, which are purely instrumental, showing the organizational outputs necessary for the outcomes to be achieved.

All subsequent models have embraced this same underlying logic. It quickly became clear that the hierarchy of outcomes/objectives approach requires clear modeling of interactions between objectives; highlights potential conflicts between some objectives (since governments usually have multiple objectives, which may even be contradictory, and therefore require prioritization, although the priorities themselves may often not be stated clearly or consistently); and may give rise to performance measurement at all levels of the hierarchy. However, its greatest innovation is that it shows the map of interrelated objectives as a set of hypotheses about ‘cause and effect’ in the organization. Since these hypotheses can be contested (and often are in practice), this approach demanded an ‘evidence-based policy’ approach, long before that became fashionable.

In tackling the attribution problem, the cause-and-effect model has to deal with the key problematic in public policy analysis that policy-making is an arena for power plays by stakeholders, in which the upper hand is usually held by a dominant stakeholder or dominant coalition. As a model of the hypothesized links between aspirations, a cause-and-effect chain of outcomes/objectives allows stakeholders to contest the views of ‘reality’ held by others.
Only a model which explicitly shows ‘links with arrows’ can do this – the traditional listing of ‘levels’ of outcomes and objectives does not generally provoke this debate. In the typical situation where stakeholders nurture beliefs that serve defensive functions (‘designed blindness’), clear debate over causal links may give new insights into why policies they support are failing and some understanding of why they meet resistance from other stakeholders to their proposed policies (Hansen and Vedung 2010).

However, extraordinarily, much cause-and-effect modeling of public policy has ignored this basic process of stakeholder negotiation. For example, Irwin (2003: 645), after describing fragmented units undertaking different functions across a public service claimed: ‘The strategy map helped overcome these internal divisions. It demonstrated that all members of the SBS [the case study] were working to a common agreed objective’. Actually, the logic of the cause-and-effect chain model of outcomes/objectives is that each stakeholder can construct and fight for its own vision of the appropriate organizational or partnership aspirations. Moynihan (2005: 211) emphasizes the importance of this: ‘. . . most organizations limit their potential to learn by implicitly or explicitly making any direct challenge to the existing organizational goals taboo or inappropriate’. While this multi-stakeholder approach to modelling goals and outcomes may reduce apparent consensus, it can add meaning to the strategy-making process. As McDonald et al. (2003: 25) suggest, this means ‘going beyond average outcomes to identify sub-groups and multiple pathways through projects to get some insight into the crucial matter of what worked for which groups and why’. Public policy analysis is therefore a multi-disciplinary and multi-level task, even within stakeholder groups. Cause-and-effect models which do not embody this multi-stakeholder perspective are therefore inherently suspect.

A multiple stakeholder approach does not simply mean the overlay of different stakeholder maps, each containing a sub-set of the overall cause-and-effect chain of outcomes/objectives. In practice, stakeholder maps may differ in the objectives they contain and in the logical cause-and-effect chains which are modeled within them. This means that the construction of a strategy map (with its associated balanced scorecard), as advocated by Kaplan and Norton (2001, 2004) cannot simply be a matter of compiling the views of different stakeholders into one overall map, as they claim. The reason they miss this is that they have an entirely unitary view of the organization and its strategy: ‘[Strategy maps] enable all organizational units and employees to understand the strategy and identify how they can contribute by becoming aligned to the strategy’ (Kaplan and Norton 2001: 104). This simply assumes away the issue of how different stakeholders, competing for power, envision the choice of pathways which will promote the realization of their specific aspirations.

Moreover, the easy assumption often made in the literature that a single cause-and-effect chain can be ‘hewn’ out of the experience of each organization is logically false. A stakeholder may draw a different hierarchy of outcomes/objectives for different purposes at different times, for example based on changing priorities given to the different top level outcomes or to the interests of different priority groups. Again, there are, at least in theory, an infinite number of steps between each linked pair of objectives – the depth to
which a stakeholder unpacks these is likely to be decided pragmatically – what level of detail is needed to solve the specific problem being addressed?

Of course, it is not always a good thing that stakeholder perceptions of cause-and-effect chains differ – as Jennings and Haist (2004) point out, performance management is likely to have more impact when political interests agree on the goals of policy and on the validity of the chosen indicators. Moreover, Borum (2004) shows how the social construction and interpretation of means-end frames in a Danish hospital setting was both central to preserving a shared understanding of the differing goals in that setting but also contributed to the destabilization of that understanding, via the actors’ different interpretations and their contestation of central institutions.

However, this recognition of differing stakeholder perceptual maps of cause-and-effect suggests that the search for consensus, which will rarely be achieved, may be unnecessary. The management of stakeholder diversity can itself bring richer understanding and lead to interventions considered by a larger number of stakeholders to be effective. Moreover, the pretence of consensus can undermine policy analysis – as Dahler-Larson (2005) points out, without a serious attempt to resolve the issue of causation, holding public agencies or staff responsible for outcomes is a relatively random, and thus unfair, process, however ‘tough’ it appears.

This leads us to the conclusion that the search for ‘organizational outcomes’ has been ‘fool’s gold’ twice over. First, only stakeholders have desired outcomes, not organizations – so that any attempt to state ‘organizational outcomes’ is fundamentally an attempt to impose upon other stakeholders the outcomes believed by the dominant stakeholder group or coalition to be the most advantageous public expression of its own interests. Furthermore, each stakeholder’s objectives are likely to be prioritized differently over time or in different places. Second, each stakeholder group or coalition is likely to need a different map of pathways to its outcomes, depending on the problem it wishes to address. As Hudson and Lowe (2009) suggest, policy mapping can be done at many different scales from macro (e.g. global or system-wide) to micro (e.g. local or issue-specific).

From this perspective, we can see each stakeholder’s explicit cause-and-effect map of outcomes as a set of windows into a much wider (indeed infinite) ‘underlying world’ of pathways to outcomes – the structured ‘opportunity space’ facing the stakeholders concerned. To illustrate this, we will use some outcome/objective maps derived from work with the West Midlands police. In figure 1, the background window presents a set of outcomes and objectives for reassuring the public about the level of community safety, as envisaged by the Command Team of the police force. Here the objective ‘to provide high visibility policing’ is an instrumental objective on the pathway to achieving the higher level outcome ‘to deter crime’. One subset of these objectives has been highlighted in a separate window, showing the perspective of police officers responsible for ‘community policing’ in particular neighbourhoods. For them, the main outcome they seek is to reassure the public that its fear of crime is not justified by actual levels of crime, but they have a further objective ‘to provide high visibility policing’, which they believe to be related to the public’s perception of its own safety.
Of course, other groups involved in community safety have different perspectives. Figure 2 presents a new ‘window’ – the set of outcomes/objectives held by the ‘catch ’em, bang ’em up’ stakeholder group. For them, the police should focus on crime detection in order to reassure the public about safety. For this group, ‘high visibility policing’ is seen only as a sub-objective on the pathway to detecting crime. What we see here is a dispute about the empirical relationships in this specific social setting. And this argument really matters – the two versions of this map lead to very different strategies for police work. In fact, there is empirical evidence that in the UK the emphasis on ‘high visibility policing’ is likely to be dysfunctional in meeting most stakeholders’ expectations, as research suggests that police officers on the beat are a poor means of either deterring or detecting crime (Clarke and Hough 1984; but for a counter view, see Sutton and Hodgson 2012). This evidence has been ignored by stakeholders placing emphasis on ‘high visibility policing’. Until these arguments are resolved by analysis of relevant evidence, major resources may be wasted.

As this example illustrates, it is unwise to take at face value any set of ‘organizational’ outcomes/objectives which purport to represent all stakeholders. Of course, organizations or partnerships governed by a dominant coalition are likely to be reluctant to surface very clearly their stakeholders’ contrasting analyses of potential pathways to outcomes. Agenda setting often means closing down options rather than opening them up. However, given
that each group of stakeholders is likely to undertake such analysis for itself and even (often inaccurately) to second-guess the results of similar exercises by other stakeholder groups, there is a question as to whether it may be in the interest of the dominant coalition to have a more transparent dialogue, with all stakeholder evaluations being resourced and published, and therefore open to critique.

**Why Cause-and-Effect Chain Models Matter**

In this section, we explore the implications for the current UK move to outcome-based policy-making and performance management, given the underdeveloped state of cause-and-effect modelling in UK social policy. In table 1, we distinguish the potential conceptual deficiencies and pitfalls in government’s approach to cause-and-effect modelling. One dimension relates to pathways logic – its misapplication, ignoring (some or all) pathways or trying to apply pathways logic in systems where it is not appropriate. The second dimension is whether the cause-and-effect logic is over-simplified (e.g. by only considering a few of the potential pathways) or over-complicated (e.g. attempting to set out a pathways logic where in practice there is little evidence of what leads to outcomes).
Based on this typology, we explore the implications for social policy of each of the cells in table 1 through six illustrative case studies, each highlighting different ways in which cause-and-effect modelling is being neglected or misused:

1. misapplying cause-and-effect models of outcomes in UK National Health Service (NHS) treatment guidelines;
2. placing too much confidence in narrow, under-specified cause-and-effect models;
3. underestimating the need for ‘whole systems’ interventions;
4. misguided attempts to model outcomes through cause-and-effect models, in policy areas where behaviours are better modelled as complex adaptive systems;
5. managing outcomes in the absence of credible cause-and-effect models;
6. setting priorities which mix up different pathways to outcomes

All the case studies analyzed here relate to recent government social policy in the UK (post-2007 in all cases, except case study 4, which covers 1999–2006). They have been chosen from different areas of social policy (including healthcare for people with heart failure, obesity policy, drugs policy, smoking prevention strategy, commissioning of employment outcomes for young people and mental health strategies). However, the key criterion in choosing them was that they should illustrate clearly the logical inconsistencies in social policy when cause-and-effect modelling is ignored or misapplied.

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<th>Misapplying pathways logic</th>
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<td><strong>Over-complicating the cause-and-effect logic</strong></td>
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Case study 1: Misapplying cause-and-effect models of outcomes in UK NHS treatment guidelines

In the UK Coalition government’s White Paper, *Equity and Excellence: Liberating the NHS*, a new NHS Outcomes Framework was announced, focusing on NHS outcomes from providing treatment and healthcare. The detailed guidance (DH 2010) promised that, as far as possible, the NHS would be held to account for outcomes that it alone can influence – for all outcome indicators, the extent of the relative contribution of the NHS would be made clear, as distinct from the contribution of public health interventions and social care services.

In itself, this represents a heroic attempt at ‘unpicking’ organizational attribution, and flies in the face of the analytical logic of cause-and-effect models, as presented in earlier sections. (The Department of Health announced that it also intended to consult on outcomes frameworks for those outcomes that can only be delivered for patients and carers if the NHS works in partnership with public health and social care services, to ensure organizations provide complementary and integrated services.)

The reason for this optimistic (and apparently foolhardy) approach is that it takes a very narrow approach to outcomes analysis. The fundamental model proposed by the government is shown in figure 3. For each of the five outcome domains specified in the Outcomes Framework, an overarching indicator (or set of indicators) will be specified. For a ‘small set’ of ‘improvement areas’ leading to that outcome an outcome indicator will be identified and supporting Quality Standards will be published.

The outcomes in the Outcomes Framework which the Department of Health seeks in relation to improving the effectiveness, safety and experience of care (the overall mission of the NHS) for people with chronic heart failure are:

1. Preventing people from dying prematurely.
2. Enhancing quality of life for people with long-term conditions.
3. Helping people to recover from episodes of ill health or following injury.
4. Ensuring that people have a positive experience of care.
5. Treating and caring for people in a safe environment and protecting them from avoidable harm.

Figure 3

Structure of each domain in the NHS Outcomes Framework

Source: DH 2010: 15.
Clearly, this list of outcomes has not been informed by rigorous cause-and-effect analysis. There are several top level outcomes, likely to be desired in and of themselves (outcomes 1 and 2), an intermediate outcome which contributes directly to these top level outcomes (outcome 3), one care outcome (outcome 5), which is at least partly instrumental, and one outcome which is related to the way care is given (outcome 4).

Even more revealingly, outcome 5 is a hybrid with at least three elements, which have only loose logical connections to each other. ‘Treatment and caring’ are not outcomes in themselves but rather outputs on the pathway to desired outcomes. The conditioning phrase ‘in a safe environment’, together with the additional outcome ‘protecting them from avoidable harm’ suggests that it is actually the safety of those treated and cared for which is the outcome being sought here – but that is not what the outcome actually states. In fact, outcome 5 is, in itself, a short statement of several elements of a cause-and-effect chain, which have not been disentangled and logically related to each other.

The Department of Health intends the Quality Standards to provide an authoritative definition of what high quality care looks like for a particular care pathway or service, drawing on available evidence of best practice, as interpreted by the National Institute for Health and Clinical Excellence, working in partnership with clinicians, leading experts and healthcare specialists (DH 2010). There is no recognition here that different stakeholders might prioritise different quality standards. Moreover, these quality standards are not pathways to outcomes. They are statements of treatments (which are evidenced to have positive medical effects) to be given to patients. The Department of Health (DH 2011: 1) justifies this by stating: ‘At present there are limited health outcome measures that can be used as quality measures. Therefore, the focus of the quality measures is on improving the processes of care that are considered to be linked to health outcomes’. However, this means that the ostensible purpose of the White Paper and its battery of guidance documents, ‘to recalibrate the whole of the NHS system so it focuses on what really matters to patients and carers . . . the delivery of better health outcomes’ (DH 2010: 3), has been undermined. This is directly due to its lack of rigour in its attempt to delineate the cause-and-effect relationships between primary care, treatment and outcomes.

Case study 2: Putting too much confidence in narrow, under-specified cause-and-effect models

The second case study explores a different way in which cause-and-effect reasoning is misunderstood and misused in social policy, this time from placing too much confidence in narrow pathways to outcomes and giving insufficient attention to the role of cause-and-effect reasoning in opening up policy options.

The new UK Coalition government’s drug strategy (HM Government 2010: 9) states that it will ‘establish a whole-life approach to preventing and reducing the demand for drugs’. It then sets out the objectives which this approach will achieve (table 1).
The policies which the government outlines in relation to achieving these objectives (Home Office 2010: 12) are:

a) Families will be supported to give their children the best possible start in life
b) Family Nurse Partnerships will develop the parental capacity of mothers and fathers within potentially vulnerable families
c) A national campaign will help to turn around the lives of those families with the most complex needs...
d) We will make sure school staff have the information, advice and the power to:
   • Provide accurate information on drugs and alcohol . . .
   • Tackle problem behaviour in schools, with wider powers of search and confiscation . . . for heads to take action against pupils . . . dealing drugs in school.
   • Work with local voluntary organisations, the police and others to prevent drug or alcohol misuse.
e) All young people should be able to remain in education or training until the age of 18 . . . [with] financial support . . . available to the most disadvantaged young people . . .
f) We will simplify funding to Local Authorities, including the creation of a single Early Intervention Grant . . .
g) New funding arrangements for youth justice services [to] incentivise . . . innovative ways to reduce the number of young people who commit crime, including [where drug or alcohol misuse contributes to offending].
h) For those young people [already harmed by] drug or alcohol misuse, or . . . at risk of becoming dependent . . . rapid access to specialist support that tackles their drug and alcohol misuse . . .

As shown in table 2, these policies only cover four of the six stated objectives (although objective 5 contains within it a policy specifically aimed to achieve it). This logical inconsistency demonstrates the dangers of a ‘listing’ approach to objectives, rather than a modeling approach. Two of these objectives are to be tackled by one policy only, which is logically tenable but raises the question of what will happen if this policy does not work.

What is not logical, however, is that out of six objective statements, four contain ‘two-tier spliced’ objectives, i.e. objectives of the form ‘to do X in order to achieve Y’ or ‘to achieve Y by means of doing X’. If we strip out these ‘lower level’ objectives embedded within the statements, we find the highest level objectives which are being proposed by the government, namely:

A. to break inter-generational paths to dependency;
B. to help young people (and their parents) more actively to resist substance misuse;
C. to intervene early with young people and young adults;
D. to support people to recover;
These are themselves obviously inter-related – for example, A, C, E and F are all ways of achieving B. However, the ways in which they can contribute to objective B are heavily constrained by the ‘splicing’ of extra, lower-level objectives to them. For example, the breaking of inter-generational paths to dependency is to be achieved only through supporting vulnerable families. Again, encouraging individuals to take responsibility for their own health is to be achieved mainly through creation of Public Health England. The choice of these particular pathways to the higher level objectives is not based on a clear mapping of the alternative pathways and presentation of evidence as to which of these pathways appears most likely to work. There is not even an attempt to show which of them is most likely to achieve objective B, which appears to be the overarching objective in this part of the strategy. These objectives are, in themselves, mini cause-and-effect chains which are left unconnected to each other.

The illogicality of this approach is demonstrated further by a later section in the strategy (HM Government 2010: 20) where the government states:

Key to successful delivery in a recovery orientated system is that all services are commissioned with the following best practice outcomes in mind:
• Freedom from dependence on drugs or alcohol;
• Prevention of drug related deaths and blood borne viruses;
• A reduction in crime and re-offending;
• Sustained employment;
• The ability to access and sustain suitable accommodation;
• Improvement in mental and physical health and wellbeing;
• Improved relationships with family members, partners and friends; and
• The capacity to be an effective and caring parent.

It goes on to say that ‘[c]entral Government will not seek to prescribe the approaches that should be taken in delivering these outcomes but will instead take a central role in carrying out research to develop and publish an evidence base as to “what works” and in promoting the sharing of best practice’. This is nonsensical, given the ways outlined above in which the statement of its objectives has already placed major constraints on the ways in which these outcomes can be addressed.

Case study 3: Underestimating the need for ‘whole systems’ interventions

The third case study illustrates the need to avoid adopting narrow pathways to outcomes in situations where only ‘whole systems’ approaches to cause-and-effect modeling are likely to provide policy options likely to be considered as effective by stakeholders.

The obesity system map was designed by Foresight (2007) as a conceptual representation of the interdependencies of relevant variables that currently determine the energy balance of an individual or group of people in the UK. It was constructed, on behalf of government, using detailed advice from a large group of experts drawn from several disciplines, to overcome the problem that most scientific analysis to date has not generally been well integrated across the different disciplines and interactions between different variables are poorly understood, so that there is a continuing debate about the relative importance of each cause or variable. Foresight argues that the map represents the most comprehensive ‘whole systems’ view of the determinants of energy balance that exists. It has subsequently been updated and achieved widespread commendation (Mulgan 2009). The approach specifically recognizes the different aims of different stakeholders, including citizens who have a range of attitudes to their own obesity.

The map has already been used to identify key determinants and relationships and to visualize how future scenarios and options for policy responses might affect the obesity system. Despite its complexity, the map can suggest key variables and points of intervention that might have greater impact than others if addressed as part of an integrated strategy. In line with the arguments in this section, Foresight argues that the complexity and interrelationships of the obesity system described in its report make a compelling case for the futility of isolated initiatives. It specifically argues that focusing heavily on one element of the system is unlikely to successfully bring about the scale of change required.
Rather, a comprehensive, long-term strategy to combat the obesity problem is required, which is broadly based and integrated. Uncoordinated initiatives, however well intentioned, risk failure by underestimating the complex nature of the issue. In order to avoid ‘policy cacophony – where noise is drowning out the symphony of effort’ (Lang and Rayner 2007), Lang and Rayner suggest that policies need to cover the range and depth of the multiple, concurrent interventions needed. If new policies are to be considered as effective by significant groups of stakeholders, they must embrace the policy remit of numerous government departments and other important sectors such as the food industry in an integrated fashion. If policies are developed in isolation, there is a very high risk that positive action in one area might be undermined by well-intentioned but opposing forces in another. Yet Musin-garimi (2008) chronicles the lack of a UK obesity strategy (which has continued to 2012), with only England having a national strategy (since 2008) and with most government policy focusing on schoolchildren. Consequently, key elements of a system-wide approach, such as taxation of unhealthy foods, have not been brought into play and the growing problem of obesity in older people has been neglected. The recent Health People, Healthy Lives: A Call for Action on Obesity in England (DH 2011), which does indeed advocate a system-wide approach along the lines of the Foresight report, still baulks at bringing the full range of potential government policy, including taxation policy, into play.

Case study 4: Attempting to impose cause-and-effect models on complex adaptive systems

Still working at the ‘whole systems’ level, a very different issue arises where complex adaptive systems (CAS) are in operation. Here there can be no predictability in relation to the sequence of outcomes experienced in the system (Bovaird 2008; Richards 1990). Because of the non-linear relationships which guide behaviours of agents in a CAS, all trajectories of the system may eventually lead to radical outcome changes. However, these non-linear relationships simultaneously mean that the pathway to these transformation points is unpredictable, albeit conforming to the ‘strange attractors’ which provide outer limits to system behaviour. Knowledge of what these ‘strange attractors’ look like is the only form of predictability potentially available for CAS. Consequently, planners and strategists can only hope, at best, either to join the game themselves, as ‘within-system’ players, or to take part in the setting of very outline ‘meta-rules’ which will determine the shape of these ‘attractors’.

Cairney explores the example of the UK ban on smoking in public places. By 2006 all four countries in the UK had decided to ban smoking in public places. However, this was not a clear-cut and effortless policy change. The evidence from post-devolution Scotland (the leader of the four) suggests that there was not an inevitable progression towards a comprehensive smoking ban (Cairney 2007) but its decisions did influence the rest of the UK. Further, the evidence suggests crucial country-level differences in the receptiveness to policy change. In each country, the ability of the four key factors – institutions, pressure groups, public/media opinion and policy transfer – to explain change differed. First, each devolved territory was subject to uncertainty.
regarding its policy competence in this area. Second, each reacted differently to international policy developments. Third, each took a different approach to the weight of public and media opinion. Fourth, each country experienced different levels of pressure from participant activity. Fifth, the role of parties within Parliament was crucial in each country for different reasons. Consequently, the dynamic non-linear interactions between policy drivers in the four countries, which influenced the policy options available, meant that the outcomes in each country were very difficult to predict – straightforward cause-and-effect models simply did not apply.

Case study 5: Managing in the absence of credible cause-and-effect models

This case study illustrates the situation where public sector service planners and managers admit that there is no credible or agreed cause-and-effect model linking current services to outcomes. This situation is perhaps more common in social policy than has typically been admitted. One response, ‘Outcome Plan Funding’, is for the commissioners of services to specify a set of desired outcomes, and invite proposals from providers on how they would achieve them, with supporting evidence. Payment can either be through ‘payment by results’, based on outcomes achieved, or through less formal, grant-style funding, rather than a contractual arrangement. Here commissioners abandon inflexible and restrictive specifications, simply requiring evidence that activity packages are likely to contribute positively to desired outcomes.

An example of this approach is the Pan-London NEET Provision project, which supports young Londoners who are not in education, employment or training (NEETs) to re-engage with education, training or employment for a minimum of 52 weeks. A flexible commissioning approach, designed to increase the likelihood of achieving sustained engagement outcomes, rather than a specification of expected services, is being used for this project, including a non-prescriptive approach to encourage delivery partners to submit innovative responses. Delivery partners are required, however, to demonstrate that they are able to deliver at least the minimum number of outcomes (generally in terms of young people who are placed in employment, education or training for at least one year). The Pan-London NEET Provision project pays providers according to an outcome-based payment model, with payments made at stages where young people begin taking part in engagement activities; enter education, employment or training; have been engaged for 26 weeks; and have been engaged for 52 weeks.

Case study 6: Setting priorities which mix up different pathways to outcomes

A final short illustration of how social policy can be seriously distorted by a misunderstanding of the logic of cause-and-effect chains relates to prioritization – in the nature of a cause-and-effect chain, if one objective on a pathway is a priority, so must be the objectives which contribute to it – consequently, a priority has to be conceived of as the full connected pathway to an outcome, not a single outcome or objective. An example where this basic principle has been
ignored is given in HM Government (2011: 39–46), a ‘cross-government mental health outcomes strategy’, which states that:

In addition to stigma and discrimination, the critical priority areas [to improve mental health outcomes] will include:

1. the early years, children, young people and families;
2. supporting families with multiple problems;
3. Improving Access To Psychological Therapies (IAPT);
4. reduction in drug misuse;
5. alcohol abuse;
6. employment;
7. homelessness;
8. the mental health of veterans;
9. the mental health of offenders; and
10. co-ordinating, promoting and supporting research.

This list consists of the identification of four target groups (1, 2, 8 and 9), action on four triggers of mental health problems (4, 5, 6 and 7), one specific treatment intervention (3) and one background analytical function which could support some or all of the others (10). Thus these ‘priorities’ consist in some cases of separate pathways to outcomes but in other cases they consist of several steps on the same pathway and, in the case of 10, potentially of research which is on none of the priority pathways.

**Conclusions**

The argument in this article accepts the concerns of March, Simon and Wildavsky in the 1950s and 1960s that the formulation and refinement of social policy may often be through lateral thinking and emergent practice, rather than linear ‘rational’ thinking, such as is embodied in cause-and-effect chains. Nevertheless, it suggests that cause-and-effect chains may indeed be valuable to policy-making in many circumstances. Indeed, the argument above directly challenges that school of theorization which seeks entirely to proscribe ‘linear rational thinking’ from the toolkit of policy analysis. As illustrated by Bulmer et al. (2007), a key competence in policy-making is being able to root policy analysis in the evidence base. This article has shown that the ‘attribution problem’ of securely linking outcomes to social policy interventions, although always present, can be partially tackled by incorporating cause-and-effect reasoning into the social policy debate, both in opening up policy options in advance and in holding policymakers to account for the options which they actually implement.

However, the role of cause-and-effect analysis has been poorly understood in policy analysis in recent decades. Moreover, its application has often been slipshod and inappropriate, paying no attention to the basic underlying logic. Lists of objectives and outcomes have been paraded as providing a rationale for government policies, without any convincing attempt to show how they relate to actual interventions. This fundamental analytical weakness has prob-
abley played an important part in the widespread discrediting of the ‘performativity’ syndrome which has been identified in UK and other governments within the Organisation for Economic Co-operation and Development.

This challenge to the prevailing scepticism about cause-and-effect models of public policy has implications for the social policy research agenda. Where major defects exist in the cause-and-effect reasoning employed in government policy documents, questions arise as to whether or not this is important (is the logical reasoning simply a symbolic cover for policies decided on purely political grounds?), and, if it is important, why does it arise? Further research is needed into why these misunderstandings arise – is it, for example, because the tools of cause-and-effect modelling are poorly understood? Or perhaps because they are deliberately misused in the politicking around getting one’s way in the policy formulation arena? Clearly, such tools will always be used by stakeholders to privilege their own claims to superior policy – but why do interest groups and policy lobbyists so often display the same slipshod logic as they attack in government policy documents?

Lastly, it is important to recognize that, although evidence-based decision-making, based on clear pathways to outcomes, may appear to be the gold standard in social policy, a gold standard may turn out (as in economics) to be a serious handicap in policymaking – the ‘best as the enemy of the good’. Cause-and-effect analysis can reveal many potentially valuable insights into policy improvements – but its inappropriate or incompetent use can also lead to seriously misguided policy judgements.

References


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