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**Analysing evidence use in national health policy-making –  
an institutional approach**

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GETTING RESEARCH INTO HEALTH POLICY AND PRACTICE

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## Introduction

This paper sets out a framework for analysing the role of research evidence in health policy-making. The framework will be used to explore how, why and when national ministries of health use research evidence in the process of health policy-making, and which factors and conditions help or hinder evidence use. In addition, it examines how the role of evidence in health policy-making can be compared between countries. The theoretical framework set out here aims to help us better understand whether an institutional approach can be usefully applied to explore differences in policy processes in countries at central government level, and whether these differences in processes translate into differences in the use of research evidence in health policy-making. As such we aim to contribute to the literature on international comparisons in public administration and public policy.

We focus here on evidence and policy in the field of public health (here defined as including the organisation, provision and funding of health services) – a policy area in which many expect that policy development should be fully informed by research evidence (Nutley et al., 2007, Lomas and Brown, 2009, Lavis et al., 2009). This framework is part of the GRIP-Health project, a larger programme of work that examines the relationship between evidence and policy in national health policy-making in six countries.<sup>1</sup>

While well established in comparative public policy, institutions have been underutilised as an analytical lens to understand the factors that influence whether, why and how research evidence is used in health policy-making. Research on evidence use in health policy suggests that the extent to which policy-makers draw on evidence varies between policies and settings, and is influenced by a range of factors associated with the context and politics of policy-making (Black, 2001, Mark and Henry, 2004, Weiss, 1979). Yet health policy researchers often find it difficult to conceptualise what they mean by ‘context’ or ‘politics’. This project therefore seeks to explore whether a better understanding of institutional factors can help shed light on the context and politics of evidence use.

## Contribution to the literature

The current reluctance to use institutional analysis to explain differences in practices of evidence use in a cross-country perspective may be explained by the divisions between academic disciplines and their different preferences in terms of both research foci and theoretical frameworks used to examine these. Institutions are key concepts in political science and well established as a way of analysing political decision-making processes

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<sup>1</sup> <http://www.lshtm.ac.uk/groups/griphealth/>

(Peters, 2010). However, the precise meaning of the term institution, as well as the theoretical and empirical foundations of the various definitions, are widely contested (Ostrom, 1986, Schmidt, 2008, Radaelli et al., 2012, Greenwood et al., 2008).

Institutional analysis is also well established in international comparisons of public policy, including comparisons of health systems and reforms (Immergut, 1992, Tuohy, 1999). Yet these analyses do not specifically consider the role of evidence in health policy-making. Indeed, the specific focus of our current comparative study – the use of particular knowledge sources as inputs to decision-making – is likely to pose challenges to an institutional approach, as there are likely to be factors that influence evidence use, which may not be captured by an institutional analysis. There is a risk that a definition of institutions that is too far removed from individual policy processes may be unable to explain the substantive differences between countries, processes, policy topics, timing, and policy outcomes (e.g. decisions), and lead to an over- or underestimation of the influence of certain institutions (Radaelli et al., 2012).

From the existing literature it seems that evidence use has received less attention from political scientists than from researchers in the field of health policy. Unlike health policy researchers, political scientists have been shielded from the paradigm of ‘evidence based policy’ which has grown out of the shadows of ‘evidence based medicine’ and developed its own powerful discourse, particularly in relation to health policy. In the UK, evidence use has become part of the government’s policy-making discourse, beginning with the 1999 White Paper ‘Modernising Government’ (HM Government, 1999), although the impact and practical implications of this agenda are debatable (Parsons, 2002, Alvarez-Rosete and Mays, 2013).

To date, research into evidence use has covered a vast spectrum of studies and conceptual approaches. In this paper, we aim to contribute to the literature by examining the processes of evidence use. Existing studies have aimed to identify ‘push’ or ‘pull’ factors that influence evidence ‘uptake’, largely applying narrow, mechanistic, models of supply and demand to explain the links between them. However, these often pay insufficient attention to contextual factors influencing evidence use (Ward et al., 2009). These studies suggest that there is a mechanism of evidence use that can be reduced to a decontextualised set of factors, which can then be reproduced in other settings. A further strand to the evidence use literature contains a series of in-depth case studies that often provide detailed, well considered insights into evidence use in particular settings, relating to specific policies and specific points in time. However, while these studies are better able to capture the complexity of factors influencing evidence use, they usually focus on single cases and may contribute little knowledge beyond their specific study site.

Only a small number of studies have examined institutions in relation to evidence use. These focus on organisational arrangements that facilitate or hinder the uptake of evidence, for example, in drug policy in England and Scotland (Nutley et al., 2002), in health inequality

policy in England (Smith, 2013), or, as an example of evidence use in clinical practice, in routine nursing practice in US hospital (Stetler et al., 2009). However, while such papers use the general terminology of ‘institutions’, their focus is mostly on specific organisational structures, and thus employ a narrow definition of institutions as formal organisations. This research interest is also reflected in current work on organisational ‘embeddedness’ (Gonzales-Block, 2013). In fact, some of the problems these papers raise are discussed elsewhere in the literature, without reference to institutions (e.g. how clinical guidelines influence nursing practice, Stetler et al., 2009). However, what is absent is a broader conception of institutions that captures the diversity of contexts and structures as they relate to administrative, political and cultural factors that influence whether and how evidence is used in policy processes.

### **An institutional approach to analysing evidence use in health policy processes**

To develop a broader approach to analysing the role of institutions in relation to evidence use in policy-making, we must first define what we mean by the term institutions and specify which type of institutions we are particularly interested in and why. There is a plethora of competing definitions of institutions (March and Olsen, 1984, Ostrom, 1986, Peters et al., 2005, Tsebelis, 2011). For the purpose of our comparative research, the focus of the analysis will be on national Ministries of Health (MoH) and other national or regional level authorities which can justifiably be seen as the ‘stewards of health policy’ (WHO, 2000, Alvarez-Rosete et al., 2013).<sup>2</sup> Where appropriate we also focus on agencies, autonomous and semi-autonomous bodies and other subsidiary organisations involved in the execution of its responsibilities. Consequently, we use a broad definition of institutions that denotes the contextual factors influencing policy decision-making, especially those *rules, norms and procedures* that shape policy decision-making. The unit of analysis is the policy processes within national ministries of health and the related agencies. Previous work has highlighted the substantial organisational differences between ministries of health and related agencies in a number of (European / high income) countries and the different roles which ministries of health and related agencies exercise in relation to key health policy decisions, such as public coverage of health services (Ettelt et al., 2007, Ettelt et al., 2010). Institutions relating to this level of analysis will be referred to as *administrative institutions* and will include:

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<sup>2</sup> We here use the concept of stewardship as defined by the World Health Organisation, which sees governments, especially ministries of health, and other organisations of the state as ultimately responsible for the functioning of the health care system (WHO, 2000).

- *The Government*: level of inter-departmental coordination; role of the bureaucracy; the nature of bureaucratic specialisation; the extent of specialisation; the degree of ministerial control of departments and agencies;
- *The Ministry of Health*: the designated its functions in relation to the health system and policy, such as planning, resource allocation, regulating, and providing services; its capacity to make decisions; its internal organisation (size, roles, structures); its relative power vis-a-vis other departments; and its relationship to other (subsidiary) bodies;
- *The Mechanisms for Evidence Use*: The organisation of the evidence advisory bodies, research commissioning arrangements or government research bodies, as they are relevant to health policy; other rules, formal or informal, that relate to evidence use in policy decision-making;
- *The Health (Care) System*: Institutions that determine the specific arrangements of the financing, provision and regulation of health system functions.

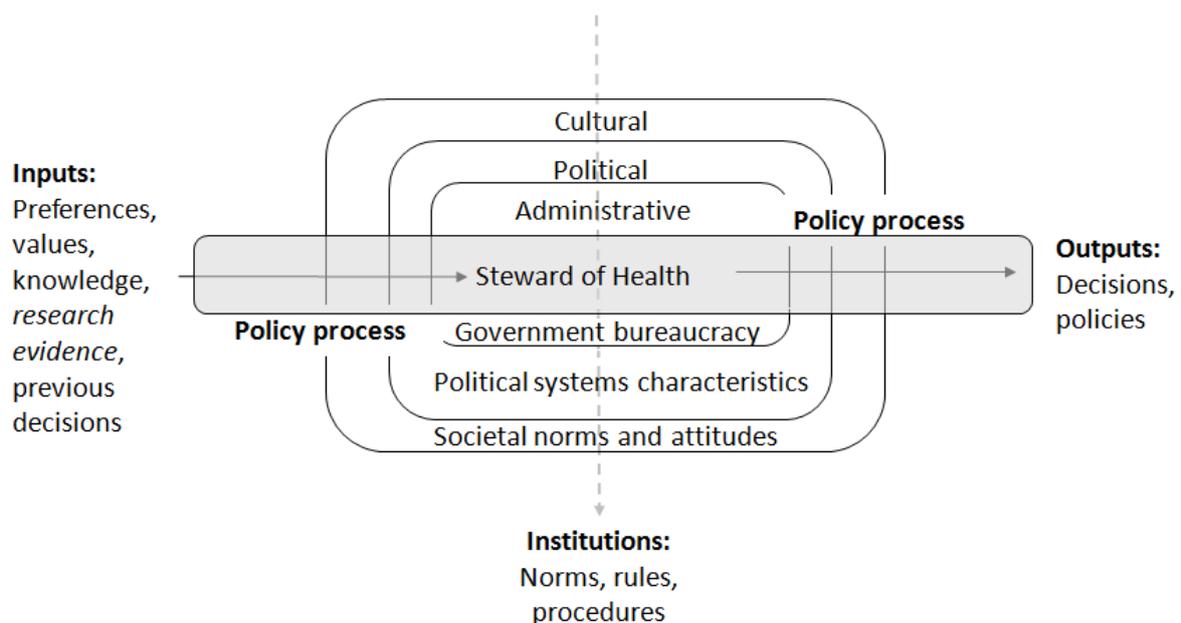
In addition, two further levels of analysis will be relevant: *political institutions* and *cultural institutions*. The former refers to institutions relating to the political system, in which government bureaucracy is embedded and which to a large extent provides the regulatory framework in which the ministerial bureaucracy operates. Drawing from political regime theory public administration and development studies, the list of *political institutions* that are relevant at this level of analysis include:

- *The level of development*: level of socio-economic development (high, middle, low income countries); state stability/fragility; institutional development (rule of law, enforcement of contract/property rights, social capital); and the influence of external actors (e.g. donor agencies).
- *The Political Regime*: democratic and non-democratic regimes (including totalitarian, authoritarian, post-totalitarian, sultanistic regimes); political cultures and policy styles (Richardson, 1982).
- *The Constitutional Structure*: unitary vs. federal states; electoral system; party system multi-level governance (upwards to supra-national organizations e.g. EU and downwards to local/ devolved authorities, arm's length bodies and executive agencies); the separation of state powers, including executive-legislative relationships; the degree of executive control; government structures, such as the role of the cabinet in decision making.

- *Cultural institutions* are institutions that relate to wider societal influences that impact on the attitudes, perceptions and preferences of policy-makers in government bureaucracies. Identity categories (such as nation, ethnicity and religion) and broader cultural factors including the position of science in society, societal norms about transparency, openness and accountability and levels of corruption are institutions to explore at this level of analysis.

This broad definition of institutions cuts across these different levels of analysis and, to some extent, links between the different domains, even though they do not necessarily relate to each level in the same way and may refer to different norms, rules or procedures (Figure 1).

**Figure :**      **Framework for an institutional analysis of policy processes at national government level**



We recognise that within this definition, different types of institutions lie on a spectrum between the formal and the informal, that is to say between those that have brought about or are represented by specific structures and organisational arrangements, and those that are largely invisible, tacit, and intangible (Douglas, 1986, DiMaggio and Powell, 1991). We expect that relevant institutions will not exist in isolation, but will form clusters and patterns that are both complex and dynamic (Ostrom, 1986). The second category of institutions; i.e.

those rules and norms that are invisible and tacit, will be the more difficult to capture, although they may be particularly pertinent to the study of policy-making.

There has been debate about the role of actors and stakeholders in institutional analysis (Radaelli et al., 2012). Sahlin and Wedlin (2008) stipulate that institutions cannot be thought of in isolation from actors and the interaction between the two (Sahlin and Wedlin, 2008). We argue that policy processes are organised, and driven, by people who discuss, negotiate, disagree, co-operate and come to decisions within specific institutional contexts. Institutions further tend to endure over time, setting the norms, rules, and procedures that future individuals will need to adhere to when engaging in policy processes. Finally, some institutional rules, structures, and arrangements can be altered or adjusted, providing a viable and lasting strategic arena for policy action aiming to embed evidence utilisation. The institutional perspective, therefore, is a crucial focus for analysis, even though the policy making process cannot be fully conceptualised in terms of institutions alone. However, it is likely that the institutional approach to analysing evidence use will bring the role of some actors to the fore while de-emphasising others.

A related concern is recognising the dimensions of power and relative weight of actors in decision-making processes and the role of institutions in defining this weight. This issue will be relevant in the context of government bureaucracies, given that they form the interface between political decision-making (involving elected politicians) and administrative decision-making (involving government officials).

### Developing questions for mid-level theory

As outlined above, three levels of analysis – cultural, political and administrative – will be distinguished, each providing a different institutional perspective and each associated with a different set of questions. The following presents some preliminary thoughts about the type of questions that could be asked at each level (depending on country, type of process and policy content):

- *Cultural*: Is there an expectation in society that policy-making is an evidence informed process? Is there an expectation that policy-makers should justify, and thus be held accountable for, their actions and decisions? Is there an expectation that science and research should contribute to improved policy outcomes (in this case improved health and wellbeing) and thus policy?
- *Political*: Do different political systems provide different opportunities for and constraints on evidence use? For example, are decentralised (e.g. federalist, regionalised) political systems more or less likely to use research evidence in policy processes than centralised systems? Are single-party governments more or less likely to use evidence than coalition governments?

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- *Administrative*: Are some administrative practices more likely to be amenable to evidence use in policy making? How does the role of civil servants, and the decision space they enjoy in relation to their political leaders, affect the likelihood of evidence use? To what extent is evidence use required by (or at least compatible with) the rules of procedure? Does it matter whether these requirements are formal or informal?

We will attempt to answer these questions through in-depth, multiple case study analysis, using semi-structured interviews and documentary analysis. As noted above, the focus of this research is on administrative practices in ministries of health and related agencies, which provide the setting for these case studies and, as the political-administrative interface, the arena in which health policy processes take place. Institutions relating to the political and cultural domains will therefore be considered only to the extent that they matter in relation to administrative processes involving research evidence in health policy-making.

We recognise that mid-level theory is required to explain (or at least provide working assumptions for) how particular institutions or institutional patterns bring about processes which benefit or hinder evidence use for the purpose of informing policy. At this stage of the project, it is difficult to anticipate what these theories might consist of beyond the most rudimentary conditions for effective governance and evidence use to occur (e.g. if there is no functional administration there can be no evidence use in policy processes). Such working assumptions would require a clearer focus on specific country settings and health policy topics to be analysed. Without this country specific detail it is difficult to generate meaningful insights, for example, that there is a better chance of evidence use if the government bureaucracy is less politicised and is governed by a code of neutrality. We therefore treat these working assumptions as an (interim) outcome of this research, to which the empirical work aims to contribute.

It is often difficult to establish whether, why and to what effect evidence has been used. Some uses may be symbolic or tactical and/or for the purpose of making policies appear 'evidence based' (Weiss, 1979, Klein, 2000). For the purpose of this work, we will apply a broad definition of evidence use that accommodates a wide range of uses and purposes as long as these can be reasonably seen as contributing to a policy decision. We can also use local officials' perspectives on whether evidence was used 'well' or 'poorly' with regard to their own concepts of effective evidence use.

## Study design

Country case selection began with a basic grouping of countries according to income level and geography. Although geography was not the determining selection criteria, we aimed to have a representative sample of countries from different continents. More importantly, national income level (based on World Bank income rankings)<sup>3</sup> was used as the primary selection variable, seeking to include countries from low, lower middle, upper middle and high income countries (World Bank, 2013). This reflected the scope of the project rather than any specific assumption with regard to government organisation (although donor dependency may become relevant in relation to health policy-making) (Liverani et al., in press).

In addition, the country case selection was guided by an attempt to capture relevant institutional factors that have traditionally been seen to be influential to policy-making. Such factors include, for example, the constitutional structure of the state, i.e. whether it is a unitary (centralised) or devolved (e.g. federalist) state; the regime type, including whether it is democratic and/or has a degree of political pluralism; and the role of the bureaucracy, especially in view of its degree of control over the policy advice given to ministers (Peters, 1995). Our initial literature review suggested there is some evidence for the importance of these factors, with the level of centralisation, the role of the bureaucracy, and the influence of external donors being particularly prominent (Liverani et al., in press).

These considerations provided a set of criteria on which to select country case studies:

- The level of democratisation or freedom of participation in policy making, using indicators from the *Freedom in the World 2012 Survey* as a proxy for regime type (free, partly free, not free) (Freedom House, 2012).
- The level of government effectiveness, using the World Bank *Worldwide Governance Indicators* as proxy indicators relating to the administrative/bureaucratic domain (World Bank, 2012). These indicators capture a complex set of variables such as perceptions of the quality of public services, the quality of policy formulation and implementation, and the degree of autonomy of civil servants from political pressure.
- The degree of centralisation of the state in terms of ‘constitutional structure’, using information from the CIA *World Factbook*. This was largely restricted to assessing whether the country is federalised or not.

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<sup>3</sup> On 1 July 2012, the World Bank income classifications were as follows: a gross national income (GNI) per capita of US\$ 1,025 or less denoted a low income countries; between US\$ 1,026 and US\$ 4,035 denoted a lower middle income country; between US\$ 4,036 and US\$ 12,475 a upper-middle-income country; and US\$ 12,476 and over a high income country.

On the basis of these variables, we identified a list of 20 potential case study countries, which we narrowed down to a list of six countries. We purposefully excluded countries, in which it would have been difficult to do fieldwork, for examples for reasons of travel safety, following published advice of the UK Foreign Office. Our final choice of case study countries is presented in the table below:

**Table Overview of criteria for country selection**

<i>Country Name</i>	<i>Gross national income per capita</i>	<i>Freedom status</i>	<i>Government effectiveness</i>	<i>Unitary vs. federalist structure</i>
<i>Cambodia</i>	Low	Not free	Low	Unitary
<i>Colombia</i>	Upper Middle	Partly free	High	Unitary
<i>England</i>	High	Free	Very High	Unitary
<i>Ethiopia</i>	Low	Not free	Medium	Federalist
<i>Germany</i>	High	Free	Very High	Federalist
<i>Ghana</i>	Lower Middle	Free	Medium	Unitary

The unit of analysis for the study are policy processes. Specific policy issues to analyse will be selected purposively to illustrate the interplay of selected institutional forces in each case study country. A tracer issue, which can be compared across the selected case study countries, will be identified along with two specific issues for each country.

Countries will be paired to be able to compare specific processes and/or policies and to allow for in-depth analysis of variables and 'context'. This means that the selection process for the comparison will happen at two levels, i.e. the level of the country (providing the political system setting) and the level of the process or policy. As a result, there will be a combination of 'most different' and 'most similar' designs, for example, by comparing policy-making practices in the Department of Health in England with those in the Federal Ministry of Health in Germany. However, these decisions should reflect the existence of previous working assumptions about variables that influence such processes and will have

to be taken on a case by case basis. Given the complexity of the subject we expect that these choices will be made selectively, with due consideration of the limits to generalisation and potential learning. Having elaborated on case selection, the focus of this paper is on the rationale for developing the analytical framework rather than on specific decision about individual comparisons.

Fieldwork is planned to begin in early 2014, with first drafts of country case studies expected to be completed by the end of the year. Case analysis will then be followed by an in-depth comparative analysis beginning in early 2015.

## References

- ALVAREZ-ROSETE, A., HAWKINS, B. & PARKHURST, J. 2013. Health system stewardship and evidence informed health policy. A working paper of the GRIP-Health programme. [http://www.lshtm.ac.uk/groups/griphealth/resources/health\\_system\\_stewardship\\_and\\_evidence\\_informed\\_health\\_policy.pdf](http://www.lshtm.ac.uk/groups/griphealth/resources/health_system_stewardship_and_evidence_informed_health_policy.pdf), accessed 1 August 2013.
- ALVAREZ-ROSETE, A. & MAYS, N. 2013. Understanding NHS policy making in England: the formulation of the NHS Plan, 2000. *British Journal of Politics & International Relations*.
- BLACK, N. 2001. Evidence based policy: proceed with care. *BMJ: British Medical Journal*, 323, 275.
- DIMAGGIO, P. J. & POWELL, W. W. 1991. *The new institutionalism in organizational analysis*, University of Chicago Press Chicago.
- DOUGLAS, M. 1986. *How institutions think*, Syracuse, Syracuse University Press.
- ETTELT, S., MAYS, N., CHEVREUL, K., NIKOLENTZOS, A., THOMSON, S. & NOLTE, E. 2010. Involvement of ministries of health in health service coverage decisions: is England an aberrant case? *Social Policy & Administration*, 44, 225-243.
- ETTELT, S., NOLTE, E., THOMSON, S. & MAYS, N. 2007. A review of the role and responsibilities of national ministries of health in five countries. London: London School of Hygiene and Tropical Medicine.
- FREEDOM HOUSE 2012. Freedom in the world 2012. [http://www.freedomhouse.org/sites/default/files/inline\\_images/FIW%202012%20Booklet--Final.pdf](http://www.freedomhouse.org/sites/default/files/inline_images/FIW%202012%20Booklet--Final.pdf), accessed 1 August 2013.
- GONZALES-BLOCK, M. A. 2013. Reflections on Health Policy and Systems Research embeddedness. Presentation at Alliance for Health Policy and Systems Research at the Harvard School of Public Health, 9 May 2013.
- GREENWOOD, R., OLIVER, C., SAHLIN, K. & SUDDABY, R. 2008. Introduction. In: GREENWOOD, R., OLIVER, C., SAHLIN, K. & SUDDABY, R. (eds.) *The SAGE Handbook of Organizational Institutionalism*. Los Angeles: Sage.
- HM GOVERNMENT 1999. *Modernising government*, London, The Stationery Office.
- IMMERGUT, E. M. 1992. The rules of the game: The logic of health policy-making in France, Switzerland, and Sweden. In: STEINMO, S., THELEN, K. & LONGSTRETH, E. (eds.) *Structuring politics: Historical institutionalism in comparative analysis*. Cambridge: Cambridge University Press.
- KLEIN, R. 2000. From evidence-based medicine to evidence-based policy? *Journal of Health Services Research & Policy*, 5, 65.
- LAVIS, J. N., BOYKO, J. A., OXMAN, A. D., LEWIN, S. & FRETHEIM, A. 2009. SUPPORT Tools for evidence-informed health Policymaking (STP) 14: Organising and using policy dialogues to support evidence-informed policymaking. *Health Research Policy and Systems*, 7, S14.

- LIVERANI, M., HAWKINS, B. & PARKHURST, J. in press. Political and institutional influences on the use of evidence in public health policy. A systematic review. *PLOS 1*.
- LOMAS, J. & BROWN, A. D. 2009. Research and advice giving: A functional view of evidence-informed policy advice in a Canadian Ministry of Health. *Milbank Quarterly*, 87, 903-926.
- MARCH, J. G. & OLSEN, J. P. 1984. The new institutionalism: organizational factors in political life. *The American Political Science Review*, 734-749.
- MARK, M. M. & HENRY, G. T. 2004. The mechanisms and outcomes of evaluation influence. *Evaluation*, 10, 35-57.
- NUTLEY, S., WALTER, I. & BLAND, N. 2002. The institutional arrangements for connecting evidence and policy: the case of drug misuse. *Public Policy and Administration*, 17, 76-94.
- NUTLEY, S. M., WALTER, I. & DAVIES, H. T. 2007. *Using evidence: How research can inform public services*, Bristol, The Policy Press.
- OSTROM, E. 1986. An agenda for the study of institutions. *Public Choice*, 48, 3-25.
- PARSONS, W. 2002. From muddling through to muddling up-evidence based policy making and the modernisation of British Government. *Public Policy and Administration*, 17, 43-60.
- PETERS, B. G. 1995. *The politics of bureaucracy*, New York, Longman.
- PETERS, B. G. 2010. Institutional theory. In: GREENWOOD, R., OLIVER, C., SAHLIN, K. & SUDDABY, R. (eds.) *The SAGE Handbook of Governance*. Los Angeles: Sage.
- PETERS, B. G., PIERRE, J. & KING, D. S. 2005. The politics of path dependency: Political conflict in historical institutionalism. *Journal of Politics*, 67, 1275-1300.
- RADAELLI, C. M., DENTE, B. & DOSSI, S. 2012. Recasting institutionalism: Institutional analysis and public policy. *European Political Science*, 11, 537-550.
- RICHARDSON, J. J. 1982. *Policy styles in western Europe*, London, Allen and Unwin.
- SAHLIN, K. & WEDLIN, L. 2008. Circulating ideas: Imitation, translation and editing. In: GREENWOOD, R., OLIVER, C., SAHLIN, K. & SUDDABY, R. (eds.) *The SAGE Handbook of organizational institutionalism*. Los Angeles: Sage.
- SCHMIDT, V. A. 2008. Discursive institutionalism: The explanatory power of ideas and discourse. *Annual Review of Political Science*, 11, 303-326.
- SMITH, K. 2013. Institutional filters: the translation and re-circulation of ideas about health inequalities within policy. *Policy & Politics*, 41, 81-100.
- STETLER, C. B., RITCHIE, J. A., RYCROFT-MALONE, J., SCHULTZ, A. A. & CHARNS, M. P. 2009. Institutionalizing evidence-based practice: an organizational case study using a model of strategic change. *Implement Sci*, 4, 1-13.
- TSEBELIS, G. 2011. *Veto players: How political institutions work*, Princeton, Princeton University Press.
- TUOHY, C. J. 1999. *Accidental logics: The dynamics of change in the health care arena in the United States, Britain, and Canada*, New York, Oxford University Press.

- WARD, V., HOUSE, A. & HAMER, S. 2009. Developing a framework for transferring knowledge into action: a thematic analysis of the literature. *Journal of Health Services Research & Policy*, 14, 156-164.
- WEISS, C. H. 1979. The many meanings of research utilization. *Public Administration Review*, 39, 426-431.
- WHO 2000. *The world health report 2000. Health systems: improving performance*, Geneva, World Health Organisation.
- WORLD BANK 2012. The Worldwide Governance Indicators. <http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=worldwide-governance-indicators>, accessed 1 August 2013.
- WORLD BANK 2013. <http://wdronline.worldbank.org/worldbank/a/incomelevel>, accessed 1 August 2013