

# **Bridging the worlds of research and policy in European health systems**



Chapter 2

**A way to approach  
knowledge brokering:  
the BRIDGE framework  
and criteria**

*John N Lavis, Govin Permanand and the BRIDGE Study Team*

### **European Observatory on Health Systems and Policies**

The European Observatory on Health Systems and Policies supports and promotes evidence-based health policy-making through comprehensive and rigorous analysis of the dynamics of health-care systems in Europe.

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## **Key messages**

### ***Developing a framework and criteria for knowledge brokering***

- Using an iterative process, the study team:
  - drafted a framework and sets of criteria based on a systematic review and a scoping review;
  - prepared a workbook describing the framework and criteria and circulated it to policy-makers, stakeholders and researchers invited to participate in a 1.5-day policy dialogue about knowledge brokering;
  - organized the dialogue to elicit feedback on the framework and criteria, captured the insights from the deliberations in a written report, and reflected as a study team on the implications of the insights;
  - revised the framework and criteria based on the dialogue;
  - used the revised framework and criteria to assess knowledge-brokering mechanisms and models being used by 163 organizations in 31 countries and, in more detail, by 28 organizations that were visited; and
  - finalized the framework and criteria based on the team's experience with applying them.

### ***Findings from the iterative development process***

- The final version of the framework for knowledge brokering has three levels: (i) the national policy-making context; (ii) the European policy-making context; and (iii) the global context. The part of the framework that addresses the national policy-making context has three components: (i) policy-making institutions and processes; (ii) stakeholder opportunities and capacities for engagement; and (iii) research institutions, activities and outputs. As a result of the dialogue, the descriptions of the attributes of this context are more concrete and more clearly situated on a spectrum from an attribute that simplifies the work of knowledge brokers to an attribute that makes it more challenging. Knowledge brokering is represented in the framework by bidirectional arrows between these components, with health systems information still being a focus but with interest group pressure, public opinion and the values of the governing party identified as being at play as well.
- The BRIDGE criteria to assess knowledge-brokering mechanisms and models evolved in subtle ways over time. One notable evolution was the greater attention given to being explicit (six mentions) or transparent (one mention). A second evolution was the more nuanced descriptions of

how comprehensively mechanisms address the many features of an issue and how policy-makers and stakeholders are involved in the governance of knowledge-brokering organizations. The final set of criteria include 11 for information-packaging mechanisms (two more than originally), 11 for interactive knowledge-sharing mechanisms (one more than originally), and nine for organizational models (one less than originally).

### ***Strengths and weaknesses of the approach***

- Using three complementary inputs – (i) a review of existing research; (ii) deliberations among policy-makers, stakeholders and researchers; and (iii) a practical application – proved to be a highly robust way to develop a framework and criteria. The other strengths of our approach include our use of a workbook to engage policy-makers and stakeholders and our use of at least two individuals in each step of applying and revising the framework and criteria.
- A downside of our approach is that we have not examined the capacity of the framework to explain relationships (e.g. between features of a national policy-making context and the choice of knowledge-brokering mechanisms) or the validity and reliability of the criteria. Another weakness of our approach is that we did not convene a follow-up policy dialogue to elicit feedback on the revised framework and criteria.

### ***Lessons learned***

- The existing research literature about knowledge brokering contains many think pieces and a number of empirical studies that highlight factors that need to be taken into account when improving knowledge-brokering mechanisms and models; there is no published research on the effectiveness of particular mechanisms and models.
- Ideas differ about what constitutes a national policy-making context. Policy-makers, stakeholders and researchers find it difficult to engage with a framework that does not present clear contrasts in how attributes are described.
- Criteria for assessing knowledge-brokering mechanisms and models, rather than being prescriptive, need to prompt reflection in light of the realities of national policy-making processes.

## **A way to approach knowledge brokering**

Much of the talk and writing about knowledge brokering is driven by anecdote, and one of our aims with the BRIDGE study was to move beyond this. We wanted to identify a way to approach knowledge brokering so that we could be certain that we were doing justice to the complexity of the activity while also bringing some order to discussions about it. We also wanted to develop criteria for assessing knowledge-brokering mechanisms and models to spur both dialogue about different approaches and evaluations of these approaches. In other words we wanted to get readers thinking about their experiences with knowledge brokering; the extent to which these experiences are context-specific, or the extent to which they may be generalizable to other contexts (and why); and how their experiences can help us to improve upon our current understanding of knowledge brokering.

Two key questions motivated the iterative development of the framework and criteria.

1. From the perspective of policy-makers and stakeholders in a given national policy-making context, how can one match particular knowledge-brokering mechanisms and organizational models for knowledge brokering to that context considering its features and those of the European policy-making context and the larger global context in which it is located?

To think about this question more concretely, imagine that you are the head of a major national research organization in a small country and you want to enhance your organization's impact on policy-making. You need to decide which mechanisms to prioritize and which organizational model to adopt for your organization given the nature of your country's policy-making context and what else is already going on within Europe and globally.

2. From the perspective of those studying knowledge brokering, which knowledge-brokering mechanisms and organizational models for knowledge brokering show promise in which types of national policy-making contexts and (given economies of scale and other considerations) at the European and global levels?

In other words, imagine that you are advising about the establishment of a new strategic direction for the European Commission's investments in research and knowledge brokering. You need to craft an approach that capitalizes on existing global resources (and avoids supporting unnecessary duplication). Your approach needs to identify the key mechanisms that are most efficiently organized at the European level and appropriate organizational models to support these mechanisms. Moreover, the approach needs to send clear signals about the nature of the mechanisms and models

that the Commission would be prepared to support in different types of national policy-making contexts. It also needs to create opportunities for innovative approaches to be tried and evaluated on a large scale.

The choice of knowledge-brokering mechanisms and organizational models for knowledge brokering is likely to be very different in a policy-making context such as that of the United Kingdom of Great Britain and Northern Ireland – where English (the language of most health systems information) is the dominant language, turnover within the civil service is not linked to elections, many policy-relevant systematic reviews are produced each year, and a free media spurs stakeholder engagement in policy-making – than in policy-making contexts that share none of these features.

### ***Research objective***

The objective of this sub-study within the broader BRIDGE study was originally worded: “to develop a framework to organize the ways – concepts, mechanisms and organizational models – in which new and existing knowledge can be transferred into policy initiatives, mechanisms and practices.” However, we came to realize over the life of the project that this phrasing continued to perpetuate the one-way communication that is so frequently lamented in the knowledge-brokering literature. A more constructive framing of our research objective is that we sought to develop a framework to approach knowledge brokering and criteria to assess knowledge-brokering mechanisms and models informed by this framework.

Our focus in this chapter is more on developing an organizing framework and criteria for knowledge brokering than on using it to interrogate the research literature on knowledge brokering (the focus of Chapter 3); to appreciate the current breadth of mechanisms and models in use (Chapter 4); to understand how these mechanisms and models work in particular contexts (Chapter 5); or to understand how they intersect with national policy-making processes (Chapters 6–9). While this book presents the framework and criteria before describing how we used them, in fact the framework was iteratively developed as we undertook the research described in these chapters. We describe this process of iterative development in the next section.

### ***Developing a framework and criteria for knowledge brokering***

To address our research objective, we used an iterative process to develop a framework and criteria for knowledge brokering. As a study team, we:

- drafted a framework and sets of criteria based on a systematic review and a scoping review (see Chapter 3) and also based on a preliminary meeting

in October 2009 with project team members and select members of the project advisory board;

- prepared a workbook describing the framework and criteria and circulated it to policy-makers, stakeholders and researchers invited to participate in a 1.5-day policy dialogue about knowledge brokering;
- organized a policy dialogue in July 2010 to elicit feedback on the framework and criteria, captured the insights from the deliberations in a written report, and reflected as a study team on the implications of the insights;
- revised the framework and criteria based on the dialogue;
- used the revised framework and criteria to assess knowledge-brokering mechanisms and models being used by 163 organizations in 31 countries (see Chapter 4) and, in more detail, to assess 28 organizations that were the focus of site visits in the autumn of 2010 (see Chapter 5); and
- finalized the framework and criteria based on our experience with applying them in late 2010 and early 2011 (this included creating the three BRIDGE policy summaries and two BRIDGE policy briefs<sup>1</sup>). At least two, and sometimes up to five, individuals were involved in each step of applying and revising the framework and criteria.

### ***Findings from the iterative development process***

We present the BRIDGE framework for knowledge brokering in Fig. 2.1. The framework has five key elements:

1. health systems information
2. knowledge brokering
3. national policy-making context
4. European policy-making context
5. global context.

We describe each of these elements in turn below.

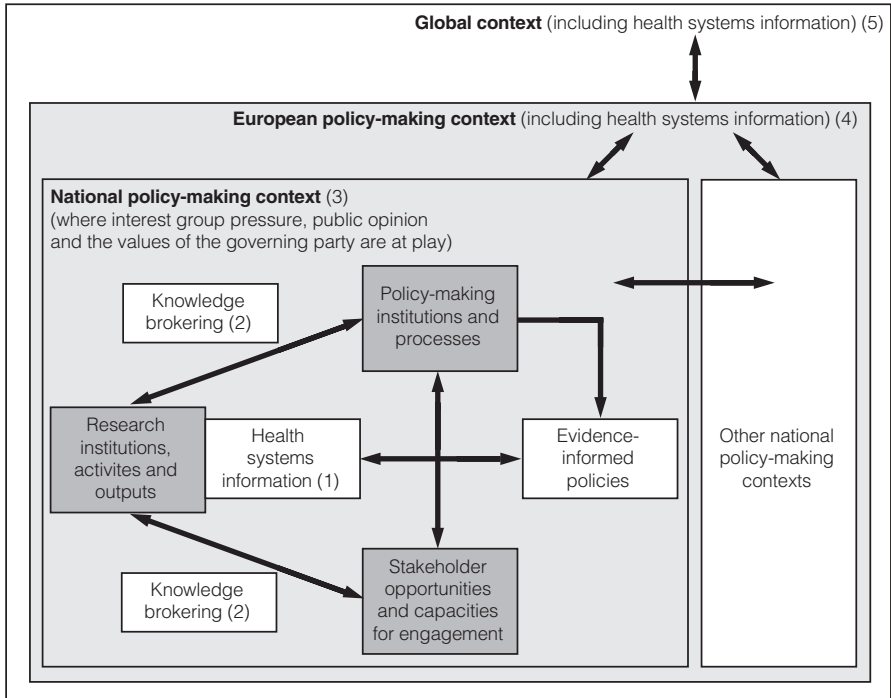
#### ***1. Health systems information***

We put health systems information at the heart of the framework because the BRIDGE study asks, in part, how can knowledge brokering better support the use of health systems information as one input to the policy-making process? We do not consider it to be the only influence, or even always a key influence,

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<sup>1</sup> Available on the BRIDGE webpages of the European Observatory on Health Systems and Policies website (<http://www.euro.who.int/en/about-us/partners/observatory/bridge-series>, accessed 19 March 2014).



**Fig. 2.1** BRIDGE framework for knowledge brokering

*Note:* key framework elements are numbered to facilitate references to them in the text. Shaded boxes indicate key components of the national policy-making context. Arrows represent knowledge-brokering activities.

on policy-making. Good health systems depend, among other things, on well-informed policy-making by governments and decision-making by a range of stakeholders. By **health systems information** we mean both data (on performance and outcomes, among other topics) and research evidence (about policy and programme options to improve performance or achieve better outcomes, among other topics). We consider **data** to be facts and statistics collected together for reference or analysis, and we consider **research evidence** to be the results of a systematic study of materials and sources in order to establish facts and reach new conclusions. The results can take the form of conceptual frameworks, primary research studies, and systematic reviews, amongst others. These definitions and others used in this chapter are summarized and their sources referenced in the glossary (Appendix A).

Health systems policy-making by governments and decision-making by a range of stakeholders require many types of health systems information (Table 2.1). For some types of policy questions, the health systems information may best come from within the national policy-making context – for example, data about indicators to establish the magnitude of a problem or research evidence about the cost effectiveness of policy and programme options to address the problem.

**Table 2.1** Links between policy questions and the types of health systems information needed

<b>Step in the policy-making process</b>	<b>Examples of the types of policy questions that may be asked</b>	<b>Examples of the types of health systems information needed to answer the policy question</b>
<b>Clarifying a problem</b>	<p>Features of problem from a systems perspective</p> <p>Indicators to establish the magnitude of a problem and measure progress in addressing it.</p> <p>Comparisons to establish the magnitude of a problem and measure progress in addressing it.</p> <p>Alternative ways of framing a problem to motivate and involve different groups.</p>	<p>Data (from within the policy-making context).</p> <p>Research evidence produced using administrative data or survey research methods (from both within and beyond the policy-making context).</p> <p>Research evidence produced using qualitative research methods (from within and beyond the policy-making context).</p>
<b>Framing policy and programme options</b>	<p>Options under discussion or that have been tried elsewhere.</p> <p>Benefits likely to be achieved with each option.</p> <p>Harms likely to arise with each option.</p> <p>Local costs and cost effectiveness of each option.</p> <p>Adaptations to an option that might alter its benefits, harms and costs.</p> <p>Stakeholders' views and experiences that might influence the acceptability of an option and its benefits, harms and costs.</p>	<p>Research evidence produced using experimental (or quasi-experimental) methods.</p> <p>Research evidence produced using experimental (or quasi-experimental) and observational methods.</p> <p>Data about costs (from within the policy-making context).</p> <p>Research evidence produced using economic evaluation methods (from within and beyond the policy-making context).</p> <p>Research evidence produced using qualitative research methods (from within and beyond the policy-making context).</p> <p>Research evidence produced using qualitative research methods (from within the policy-making context).</p>
<b>Implementing a policy or programme option</b>	<p>Potential barriers to the successful implementation of the policy at the patient/citizen, health worker, organizational and system levels.</p> <p>Benefits, harms and costs of strategies to address identified barriers.</p>	<p>Research evidence produced using qualitative research methods (from within the policy-making context).</p> <p>See rows 2–4 under 'Framing policy and programme options' above.</p>

Source: adapted from Lavis, 2009.

However, for other types of policy questions, the data and research evidence may best come from both within and beyond the policy-making context – for example, comparative data about health system performance or research evidence about the likely benefits and harms of different policy and programme options for addressing a health system problem.

## 2. *Knowledge brokering*

We defined **knowledge brokering** as the use of information-packaging mechanisms and/or interactive knowledge-sharing mechanisms to bridge policy-makers' (and stakeholders') contexts and researchers' contexts, in order to address four possible reasons for the disjuncture between information and action: (i) health systems information is not communicated effectively; (ii) health systems information is not available when policy-makers and stakeholders need it and in a form that they can use; (iii) policy-makers and stakeholders lack the capacity to find and use health systems information efficiently and (in some countries) lack mechanisms to prompt them to use health systems information in policy-making; and (iv) policy-makers and stakeholders lack opportunities to discuss system challenges with researchers.

In turn, we defined **information-packaging mechanisms** as information products in a variety of media that are focused (at least in part) on health systems information and that are intended to support policy-making. The outputs can take the form of policy briefs, issue notes, research summaries, policy dialogue reports, research reports, presentations, audio podcasts, video podcasts, videos, blogs, impact summaries, newsletters, annual reports, and cartoons and other visual media, among others. We present the 11 BRIDGE criteria to assess information-packaging mechanisms in the first column of Table 2.2. In an early version of this set of BRIDGE criteria we identified mechanisms that stem from systematic reviews and/or from meetings with policy-makers and other stakeholders as being more innovative. In the final version of the criteria, we did not use innovative and instead captured these sources in the following two criteria:

- draws on synthesized global research evidence that has been assessed for its quality and local applicability, as well as local data and studies; and
- incorporates the tacit knowledge, views and experiences of policy-makers and stakeholders that have been collected in a systematic way and reported in a transparent fashion.

Similarly, in an early version of the criteria, we identified mechanisms that focus on at least two of three aspects of an issue – a problem or policy objective, policy and programme options, and implementation considerations – as being more innovative. The final version of this criterion reads as follows:

- addresses the many features of an issue, including the underlying problem(s)/ objective(s), options for addressing/achieving it, and key implementation considerations (and, if only some features are addressed, acknowledges the importance of the others).

**Table 2.2** BRIDGE criteria to assess knowledge-brokering mechanisms and models

Information-packaging mechanism	Interactive knowledge-sharing mechanism	Organizational model for knowledge brokering
<p><b>What it covers</b></p> <ol style="list-style-type: none"> <li>1. Addresses a topical/relevant issue from the perspective of policy-makers and stakeholders with an explicit process for determining topicality/relevance (e.g. periodic priority-setting process, rapid-response service).</li> <li>2. Addresses the many features of an issue, including the underlying problem(s)/objective(s), options for addressing/achieving it, and key implementation considerations (and if only some features are addressed, acknowledges the importance of the others).</li> </ol> <p><b>What it includes</b></p> <ol style="list-style-type: none"> <li>3. Draws on synthesized global research evidence that has been assessed for its quality and local applicability, as well as local data and studies.</li> <li>4. Incorporates the tacit knowledge, views and experiences of policy-makers and stakeholders that have been collected in a systematic way and reported in a transparent fashion.</li> </ol> <p><b>For whom it is targeted</b></p> <ol style="list-style-type: none"> <li>5. Targets policy-makers and stakeholders with an explicit statement about them being a key audience (not just a policy implications section).</li> <li>6. Engages policy-makers and stakeholders (not just researchers) in reviewing the product's relevance and clarity.</li> </ol>	<p><b>What it covers</b></p> <ol style="list-style-type: none"> <li>1. Addresses a topical/relevant issue from the perspective of policy-makers and stakeholders with an explicit process for determining topicality/relevance (e.g. periodic priority-setting process, rapid-response service).</li> <li>2. Addresses the many features of an issue, including the underlying problem(s)/objective(s), options for addressing/achieving it, and key implementation considerations (and if only some features are addressed, acknowledges the importance of the others).</li> </ol> <p><b>What it includes</b></p> <ol style="list-style-type: none"> <li>3. Focuses (at least in part) on the tacit knowledge, views and experiences of policy-makers and stakeholders.</li> <li>4. Considers (at least in part) a body of health systems information on a defined topic (e.g. policy brief informed by systematic reviews and local data/studies).</li> </ol> <p><b>How it is targeted</b></p> <ol style="list-style-type: none"> <li>5. Targets policy-makers and stakeholders with an explicit statement that they are a key category of participant (not just researchers).</li> <li>6. Timed to relate explicitly to a policy-making process or to requests from policy-makers.</li> </ol>	<p><b>How it is governed</b></p> <ol style="list-style-type: none"> <li>1. Gives policy-makers, stakeholders and researchers an explicit role in its governance and ensures they exercise their role with transparency and objectivity.</li> <li>2. Includes and enforces rules that ensure independence in how health systems information is produced, packaged and shared and that address conflicts of interest.</li> </ol> <p><b>How it is managed and staffed</b></p> <ol style="list-style-type: none"> <li>3. Grants the director the authority needed to ensure the accountability of the entire organization to its knowledge-brokering mandate.</li> <li>4. Ensures an appropriate size, mix, and capacity of staff with knowledge-brokering responsibilities.</li> </ol> <p><b>How its resources are obtained and allocated</b></p> <ol style="list-style-type: none"> <li>5. Ensures an appropriate size of budget and an appropriate mix of funding sources for knowledge-brokering activities (e.g. contributions from regional and national policy-making authorities, competitively tendered awards, and an endowment).</li> <li>6. Has an explicit approach to prioritizing knowledge-brokering activities and accepting commissions or requests from policy-makers and stakeholders.</li> </ol>

**Table 2.2** contd.

Information-packaging mechanism	Interactive knowledge-sharing mechanism	Organizational model for knowledge brokering
<p><b>How it is packaged</b></p> <p>7. Organized in a way that facilitates the identification of decision-relevant information, such as the benefits, harms and costs of policy/programme options</p> <p>8. Written in language understandable to policy-makers and stakeholders.</p> <p>9. Prepared in a format that is readily appreciated by policy-makers and stakeholders, such as a graded-entry format.</p> <p><b>How its use is supported</b></p> <p>10. Contextualized through online commentaries or briefings provided by policy-makers and stakeholders.</p> <p>11. Brought to attention of target audiences through e-mail alerts/listservs.</p>	<p><b>How it is organized</b></p> <p>7. Involves the proactive identification of optimal participants (and possibly a closed list of invitees), in-person interactions or at least real-time online interactions, and a rule about whether and how comments can be attributed.</p> <p>8. Involves the pre-circulation of information products to participants.</p> <p>9. Offers all participants the potential to contribute equally to the discussion or at least opportunities for policy-makers and stakeholders to comment on or ask questions of an expert (not just listen to a presentation by an expert).</p> <p><b>How its use is supported</b></p> <p>10. Captures insights through the creation of products based on the knowledge-sharing interactions (e.g. reports on the key insights from policy dialogues and training workshops, summaries of discussion from online forums).</p> <p>11. Brings these products to the attention of target audiences through e-mail alerts/listservs.</p>	<p><b>How it collaborates</b></p> <p>7. Is located within another organization or network that supports its knowledge-brokering activities.</p> <p>8. Collaborates with other knowledge-brokering organizations in its knowledge-brokering activities.</p> <p>9. Establishes functional linkages with policy-making and stakeholder organizations (e.g. rapid-response functions, exchange programmes and other mechanisms to support responsive relations).</p>

We defined **interactive knowledge-sharing mechanisms** as mediating interactions that are focused (at least in part) on health systems information and that are intended to support policy-making. The interactions can take the form of policy dialogues, personalized briefings, training workshops, online briefings or webinars, online discussion forums, formalized networks, informal discussions, and presentations. We present the 11 BRIDGE criteria to assess interactive knowledge-sharing mechanisms in the second column of Table 2.2. We made some changes to these criteria that parallel those already described for information-packaging mechanisms. As well, in an early version of this set of BRIDGE criteria, we identified mechanisms that involve a dialogue in which each participant has the potential to contribute equally to the discussion as being more innovative. In the final version of the criteria, we used the following language instead:

- offers all participants the potential to contribute equally to the discussion or at least opportunities for policy-makers and stakeholders to comment on or ask questions of an expert (and not just listen to a presentation by an expert).

We had also originally identified mechanisms that involved in-person interactions and online synchronous interaction as being more innovative, but the final version of this criterion embeds the value of interactivity within a broader grouping of features:

- involves the proactive identification of optimal participants (and possibly a closed list of invitees), in-person interactions or at least real-time online interactions, and a rule about whether and how comments can be attributed.

Lastly, we defined **organizational models for knowledge brokering** as the features of organizations that are focused, at least in part, on health systems information and that are intended to support policy-making. These features can relate to the role of policy-makers and stakeholders in governance; rules that ensure independence and address conflicts of interest; authority to ensure accountability to a knowledge-brokering mandate; size, mix and capacity of staff with knowledge-brokering responsibilities; size of budget and mix of funding sources for knowledge brokering; approach to prioritizing activities and accepting commissions/requests; location within another organization or network; collaboration with other organizations; and functional linkages with policy-making and stakeholder organizations. We present the nine BRIDGE criteria to assess organizational models for knowledge brokering in the third column of Table 2.2. Early versions of this set of BRIDGE criteria did not involve the identification of innovative design features because the research literature and policy dialogue indicated to us that innovativeness in organizational models is closely tied to the national policy-making context (even more than it is for information-packaging and interactive knowledge-sharing

mechanisms) and the whole thrust of the criteria is to assess the fit between design features and the policy-making context. We did drop one criterion, namely the official status of an organization (e.g. private for-profit, private not-for-profit or public organization), because we concluded that the implications of this status are likely to be felt through the other criteria.

### ***3. National policy-making context***

We consider that a national policy-making context can be located at the intersection of:

- policy-making institutions and processes
- stakeholder opportunities and capacities for engagement
- research institutions, activities and outputs.

In each of these domains, and more generally, there are particular features of the national policy-making context that can be important to knowledge brokering. These attributes are outlined in Table 2.3.

Based on input received at the policy dialogue about the need to simplify the presentation of these features, we treat each one in an either–or way (a versus b). Of course, the reality is quite different. Policy-making processes may have elements of decision support driven by both the civil service and political parties. To highlight ways in which each of these features might help or hinder knowledge brokering, we present the either–or options such that the first option likely simplifies the landscape for a knowledge-brokering organization while the second one likely complicates it.

The three BRIDGE policy summaries describe how these features of the national policy-making context could influence the choice (and possibly the effectiveness) of knowledge-brokering mechanisms and models (Lavis, Catallo, Jessani et al., 2013; Lavis, Catallo, Permanand et al., 2013; Lavis, Jessani et al. 2013). As one example, a knowledge-brokering organization in England likely has an easier time establishing functional linkages with policy-makers given that the country is a unitary state with infrequent turnover of government and with centralized authority for making strategic decisions. On the other hand, the knowledge-brokering organization may be challenged by the crowded landscape for knowledge brokering in England, particularly the dynamic mix of players involved in decision support (civil service, political parties, politically affiliated think tanks, independent organizations and university-based research units) and a robust news media that brings attention to health and social care systems information from within and outside the country.

**Table 2.3** Attributes of the national policy-making context that can influence knowledge brokering

<b>Policy-making institutions and processes</b>	
<ul style="list-style-type: none"> <li>• Unitary versus federal state.</li> <li>• Centralized versus distributed authority for making decisions about priority problems, policy/programme options, and implementation strategies.</li> <li>• Single-party versus coalition government.</li> <li>• Infrequent versus frequent turnover of the governing party/coalition and its leadership.</li> </ul>	<ul style="list-style-type: none"> <li>• Civil service versus political party influence over decision support within government.</li> <li>• Centralized versus decentralized decision support within government.</li> <li>• High versus low capacity for policy analysis within the civil service.</li> <li>• Low versus high turnover within the civil service.</li> <li>• Significant versus limited resources to commission supports outside the civil service.</li> </ul>
<b>Research institutions, activities and outputs</b> <ul style="list-style-type: none"> <li>• Small versus large number of strong research institutions involved in the production, packaging and sharing of health systems information.</li> <li>• Large versus small scale of research institutions.</li> <li>• Explicit versus implicit mandate for, and resource commitment to, knowledge-brokering (not just research) activities and outputs.</li> </ul>	<b>Stakeholder opportunities and capacities for engagement</b> <ul style="list-style-type: none"> <li>• Formal, significant versus informal, limited role of stakeholders in policy-making.</li> <li>• High versus low degree of coordination within stakeholder groups.</li> <li>• High versus low autonomy of stakeholder groups from government and from narrow interests within their own memberships.</li> <li>• High versus low capacity for policy analysis within stakeholder groups.</li> <li>• Significant versus limited resources to commission supports outside the groups.</li> </ul>
<b>General features of the national policy-making context</b> <ul style="list-style-type: none"> <li>• English (the language of most health systems information) is versus is not spoken in addition to local languages.</li> <li>• Small (everyone knows each other) versus large size of the population.</li> <li>• High versus low rates of Internet use.</li> <li>• High versus low capacity of local news media for objective reporting.</li> </ul>	

*Note:* to highlight ways in which each of these features might help or hinder knowledge brokering, we present the either/or options such that the first option likely simplifies the landscape for a knowledge-brokering organization while the second one likely complicates it.

One domain that we continually struggled with was where to situate the general public within the national policy-making context. In the current framework, the public implicitly or explicitly appears in three places:

1. in the overarching policy-making dynamic where public opinion is at play (as well as interest group pressure and the values of the governing party);
2. as a stakeholder group that may have a formal and significant role in policy-making (such as through citizen councils) or an informal and limited role;
3. as a diverse collection of publics who are influenced by the local news media's capacity for objective reporting.

Regardless of where public opinion comes into play, health systems information can inform the general public.



#### ***4. European policy-making context***

Many of the features of a national policy-making context have analogues at the level of the European policy-making context, and these in turn may influence the choice of mechanisms and organizational models for knowledge brokering both at the national level (for nationally focused knowledge-brokering organizations) and at the European level (for European-focused organizations). For example, the number of regional research institutions similar to the European Observatory on Health Systems and Policies may influence the choice of knowledge-brokering mechanisms within Europe. For instance, there may be little reason to replicate the comparative work being done by the Observatory to identify challenges in health system performance and to convene policy dialogues that bring influential European thinkers and doers together to discuss how to address a challenge in health system performance.

The nature of the relations within and across European subregions may also influence the choice of knowledge-brokering mechanisms. National policy-making contexts that have competitive or adversarial relationships with other national policy-making contexts may not make use of (or may not want to be seen as making use of) mechanisms and models used by their competitors and adversaries. On the other hand, some national policy-making contexts may draw heavily on innovations and policies tried elsewhere and may actively support the diffusion of innovations and policy transfer.

#### ***5. Global context***

The key features of the global context are concentrated within the domain of research outputs. The existence, visibility and use of one-stop shops may influence the choice of knowledge-brokering mechanisms and organizational models for knowledge brokering both at the national level and at the European level. For example, there may be little reason to replicate:

- **PubMed<sup>2</sup>**
  - a database featuring validated search strategies to locate the types of primary research studies that may assist with placing a problem in comparative perspective or with framing a problem in different ways;
- **Cochrane Library<sup>3</sup>**
  - a collection of databases that contain systematic reviews addressing questions about the effectiveness of drugs and clinical programmes and services, as well as economic evaluations addressing questions about cost effectiveness;

<sup>2</sup> PubMed [online database]. In: National Center for Biotechnology Information [website]. Bethesda, MD: US National Library of Medicine; 2014 (<http://www.ncbi.nlm.nih.gov/pubmed>, accessed 19 March 2014).

<sup>3</sup> Cochrane Library [online database]. Oxford: The Cochrane Collaboration; 2014 (<http://www.thecochranelibrary.com/view/0/index.html>, accessed 19 March 2014).

- **Health Evidence<sup>4</sup>**
  - a database of systematic reviews addressing questions about the effectiveness of public/population health programmes and services; and
- **Health Systems Evidence<sup>5</sup>**
  - a database of systematic reviews and other types of research products (e.g. evidence briefs for policy, overviews of systematic reviews, protocols for systematic review, registered titles for systematic reviews, economic evaluations) addressing a broad range of questions about governance and financial and delivery arrangements within health systems, and about implementation strategies that can support change in health systems, as well as descriptions of both health system reforms and entire health systems.

Other important features of the international context include the role of knowledge communities (such as health technology assessors who have a shared set of beliefs that transcend national boundaries) and of international agreements (such as international health regulations that are binding on national governments).

### ***BRIDGE framework and criteria***

The final version of the BRIDGE framework for knowledge brokering still has three levels: (i) the national policy-making context; (ii) the European policy-making context; and (iii) the global context. The part of the framework that addresses the national policy-making context still has three components (shown as shaded boxes in Fig. 2.1): (i) policy-making institutions and processes; (ii) stakeholder opportunities and capacities for engagement; and (iii) research institutions, activities and outputs. However, following the iterative development process, the descriptions of the attributes of this context are more concrete and more clearly situated on a spectrum from an attribute that simplifies the landscape for knowledge-brokering organizations to an attribute that complicates it. Knowledge brokering is still represented in the framework by bidirectional arrows between these components, with health systems information still being a focus but with interest group pressure, public opinion and the values of the governing party also identified as being at play.

While the outcome shown in the BRIDGE framework is evidence-informed policies, we also iteratively developed a simple categorization scheme for measures of success in addressing the four possible explanations for the disjuncture between information and action described earlier in this chapter.

<sup>4</sup> Health-evidence.org [online database]. Hamilton, Ontario: McMaster University; 2014 (<http://www.healthevidence.org/>, accessed 19 March 2014).

<sup>5</sup> Health Systems Evidence [online database]. Hamilton, Ontario: McMaster University; 2014 (<http://www.mcmasterhealthforum.org/hse/>, accessed 19 March 2014).

These indicators include:

- greater use of information-packaging or knowledge-sharing mechanisms that hold promise (i.e. process measures);
- greater instrumental or conceptual use of health systems information in policy-making processes and, arguably, fewer political uses of health systems information (i.e. intermediate outcome measures), where an instrumental use involves using the information to solve a particular problem at hand; a conceptual use involves using the information to think in new ways about a problem, options and implementation considerations; and a political use involves using the information to justify a decision made for other reasons;
- better decisions within and about health systems (i.e. also intermediate outcome measures); and
- improved health (i.e. final outcome measures), although attribution challenges make this very difficult to assess, and it may be impossible to prove that a given information-packaging or knowledge-sharing mechanism had an explicit impact on a given policy decision.

The final version of the BRIDGE criteria consists of 11 criteria for assessing information-packaging mechanisms (two more than originally); 11 criteria for assessing interactive knowledge-sharing mechanisms (one more than originally); and nine criteria for assessing organizational models for knowledge brokering (one less than originally). Following the iterative development process, greater attention has been given to being explicit (six mentions) or transparent (one mention). Also, more nuance has been given to descriptions of how comprehensively mechanisms address the many features of an issue and how policy-makers and stakeholders are involved in governance of knowledge-brokering organizations.

### ***Strengths and weaknesses of the approach***

Use of three complementary inputs – (i) the existing research literature; (ii) deliberations among policy-makers, stakeholders and researchers; and (iii) a practical application – proved to be a highly robust way to develop a framework and criteria. The research literature ensured that we stood on the shoulders of those who had studied knowledge brokering before us. The policy dialogue forced us to recognize the tremendous variation in national policy-making contexts and the need to convey concepts in language as straightforward as possible. The application of the criteria led us to increase the precision of our wording so that the criteria could be applied consistently. We applied the

criteria in our website reviews (described in Chapter 4), site visits (described in Chapter 5), and national case studies (described in Chapters 6–9), as well as in our writing of the BRIDGE summaries (Lavis, Catallo, Jessani et al., 2013; Lavis, Catallo, Permanand et al., 2013; Lavis, Jessani et al., 2013).

The other strengths of our approach include:

- using a workbook to engage policy-makers, stakeholders and researchers in a deliberation informed, but not constrained, by everything we had learned to that point; and
- using at least two, and sometimes up to five, individuals in each step of applying and revising the framework and criteria.

The downside of our approach is that we have not examined the explanatory capacity of the framework or the validity and reliability of the criteria. We took a preliminary step towards the former by developing a set of hypotheses about relationships between the features of a national policy-making context and the choice of particular mechanisms and models. We used three criteria to begin to identify those contextual factors warranting further examination.

1. Plausible hypotheses can be articulated about relationships between these variables, including that the contextual factor(s) could explain choices between:
  - local (versus external) knowledge-brokering mechanisms;
  - information-packaging (versus interactive knowledge-sharing) mechanisms;
  - interactive knowledge-sharing mechanisms that engage (versus do not engage) stakeholders; and
  - organizational models that place mechanisms within (versus outside) policy-making institutions.
2. Comparable data exist across countries.
3. Economy-of-scale considerations are taken into account.

We identified a number of plausible hypotheses, which are available in the workbook that was prepared for the policy dialogue. However, we did not have the data that would have allowed us to examine these hypotheses.

Another weakness of our approach is that we did not convene a follow-up policy dialogue to elicit feedback on the revised framework and criteria. Instead, we used the resources we had available to convene a second dialogue that focused on applying the framework and criteria to the question: how can knowledge brokering be better supported across European health systems?

### **Lessons learned**

Several key lessons emerged from the iterative development of the framework and criteria.

- The existing research literature about knowledge brokering (described in Chapter 3) contains a great many think pieces and a number of empirical studies that highlight factors that need to be taken into account when improving knowledge-brokering mechanisms and models; there is no published research on the effectiveness of particular mechanisms and models.
- Ideas differ about what constitutes a national policy-making context. Policy-makers, stakeholders and researchers find it difficult to engage with a framework that does not present clear contrasts in how attributes are described.
- Criteria for assessing knowledge-brokering mechanisms and models are most useful when they prompt reflection in light of the realities of national policy-making processes, rather than prescribing a one-size-fits-all approach. This is a case we make in each of the BRIDGE summaries.

As tools for reflection, the BRIDGE framework and criteria can be used by:

- funding agencies within a country (and at the European level) to examine whether they are creating the right incentives or requirements for researchers to produce and share health systems information, and for knowledge-brokering organizations to design an operational model appropriate to their contexts;
- knowledge brokers and researchers to assess their knowledge-brokering mechanisms and models; and
- policy-makers and stakeholders within a country (and at the European level) to review (and more clearly communicate) the expectations they currently set for knowledge-brokering mechanisms and models.

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