Communicating clearly: Enhancing information-packaging mechanisms to support knowledge brokering in European health systems

John N. Lavis, Cristina Catallo, Govin Permanand, Amy Zierler, BRIDGE Study Team

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Key messages

What's the problem?

• Good health systems depend on well-informed decision-making. However, most types of information-packaging mechanism used by knowledge-brokering organizations in Europe to convey health systems information to decision-makers employ traditional scientific formats and are not prepared in a way that makes it easy for policy-makers and stakeholders to understand and use them.

What are the building blocks of effective information packaging?

• Information-packaging mechanisms will ideally gather all relevant health systems information into one place, contextualize health systems information for a given jurisdiction, and make health systems information easier to understand and use.

• The BRIDGE criteria can be used to assess an existing current information product.

  – **What it covers:** Does it cover a topical/relevant issue and address the many features of the issue based on the best available health systems information?

  – **What it includes:** Does it include knowledge from synthesized, assessed health systems information and from the tacit knowledge, views and experiences of policy-makers and stakeholders?

  – **How it's targeted:** Does it explicitly target policy-makers and stakeholders and engage them in reviewing the product for relevance and clarity?

  – **How it's organized:** Is it organized to highlight decision-relevant information, written in understandable language, and prepared in a format that makes the information easy to absorb?

  – **How its use is supported:** Is it supported through online commentaries or briefings that contextualize the information and through ongoing communication that brings new information to the attention of policy audiences?

What are five promising mechanisms for information packaging?

• We provide innovative examples from organizations using each of the following mechanisms:

  – **study summary:** a summary of an article or report that describes findings from a single study;

- – **systematic review summary:** a summary of an article or report that describes findings from a systematic review;

- – **compendium of summaries:** a thematically focused grouping of summaries of articles or reports;

- – **policy brief:** a report that begins with a priority policy issue and mobilizes the relevant synthesized research evidence about the underlying problem(s), policy or programme options for addressing the problem(s), and related implementation considerations; and

- – **policy dialogue report:** a report that describes the insights derived from a policy dialogue where policy-makers, stakeholders and researchers deliberate about a policy issue.

- • We hope to encourage others to adopt or adapt these mechanisms and participate in their rigorous evaluation, as we believe that they meet at least some of the criteria that the BRIDGE study led us to identify as important to meet the objectives of knowledge brokering. Our aim is also to spark the creation of new mechanisms that meet some of the same or even different criteria.

What are the next steps for information-packaging mechanisms in Europe?

- • Possible next steps to enhance the packaging of health systems information across Europe include:

  - – support for translation of products likely to be applicable across contexts into a number of different languages;

  - – support for adoption/adaptation of promising mechanisms among policy-maker audiences and knowledge-brokering organizations;

  - – further innovation as defined by the BRIDGE criteria; and

  - – ongoing evaluation to assess current and new mechanisms.

- • Funders, knowledge brokers, policy-makers and stakeholders can all contribute to these next steps.

Summary

Policy-makers are faced daily with making decisions and need access to good-quality health systems information. Stakeholders may seek to influence health policy as well as make decisions in their own spheres of responsibility. Both groups want information products that they can easily understand and that are clearly based on systematically conducted and transparently reported research. And researchers want to know how to communicate their findings effectively so that health systems policy-making can make use of the best available health systems information.

The purpose of this BRIDGE summary is to encourage debate and innovation about the ways in which information is prepared and packaged for policy-makers and stakeholders as one component of a broader knowledge-brokering approach. Current thinking about knowledge brokering is largely driven by anecdotal information; this document presents real-world insights from research on knowledge brokering, primarily from Europe but drawing on global experience as well.

This summary is intended not only for knowledge brokers whose work is dedicated to this role, but also for funders, researchers, policy-makers and stakeholders, all of whom can help to steer knowledge brokering by helping to set expectations for this work. While we strive to avoid jargon, a shared understanding of key terminology is important, so we define a number of key terms and concepts in Box 1.

Policy-makers need different kinds of health systems information in order to make well-informed decisions. For example, health systems information may:

- describe a problem or policy objective;

- present policy options to address the problem or achieve the policy objective; and/or

- identify implementation considerations (barriers, and strategies to address them, that may be encountered at the level of patients/citizens, providers, managers and policy-makers when addressing the policy problem or when achieving the policy objective).

Much of the health systems information being prepared and packaged today covers only one of these purposes at a time, leaving policy-makers and stakeholders with the difficult task of drawing together various pieces of information from a variety of sources in order to get a complete picture (Lavis, 2009; Lavis et al., 2008; Lavis et al., 2009).

Compounding the problem, many of these information sources have been designed by and for academic audiences (e.g., systematic reviews, peer-reviewed

Box 1: Key concepts and definitions used in this BRIDGE summary

Health policy – A formal statement or procedure within institutions (notably government) that defines priorities and the parameters for action in response to health needs, available resources and other political pressures. (European Observatory on Health Systems and Policies)

Policy-makers – The government officials who will be directly involved in decision-making as part of a policy-making process, either as decision-makers themselves (notably politicians) or as advisers working in close proximity to these decision-makers (notably political staffers and civil servants). (BRIDGE)

Stakeholders – The individuals and groups who will be involved in or affected by (i.e., who have an interest in) a policy-making process, but not those government officials who will be directly involved in decision-making. The individuals and groups can be drawn from industry, professional associations and patient groups, among others. (Adapted from European Observatory on Health Systems and Policies)

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Health systems information – 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). (BRIDGE)

Data – Facts and statistics collected together for reference or analysis. (Oxford Dictionaries)

Research evidence – The results of a systematic study of materials and sources in order to establish facts and reach new conclusions. The results could take the form of conceptual frameworks, primary research studies and systematic reviews, among others. (Adapted from Oxford Dictionaries; BRIDGE)

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Knowledge brokering – Use of information-packaging mechanisms and/or interactive knowledge-sharing mechanisms to bridge policy-makers' and researchers' contexts. Knowledge brokering addresses the four possible explanations for the disjuncture between information and action (which are described in Box 3). (BRIDGE)

Knowledge broker – An individual or organization that engages in knowledge brokering. We distinguish between dedicated knowledge brokers (whose work is focused on intermediating between health systems information producers and users) and researchers (who produce health systems information but also have a role in disseminating and supporting its use among various groups). (Adapted from Canadian Foundation for Healthcare Improvement; BRIDGE)

Information-packaging mechanisms – 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. (BRIDGE)

A full glossary of key concepts and definitions used in the BRIDGE project is available in the full BRIDGE volume (Lavis & Catallo, 2013).

journal articles, reports of 'one-off' research studies). Empirical research has identified that researchers and policy-makers operate in two different worlds with researchers often not understanding policy-maker needs and policy-makers often not able to readily find and use many sources of health systems information (Lomas, 2007). Effective knowledge brokering bridges that gap.

In this BRIDGE summary you will find practical lessons learned about how to improve information-packaging mechanisms to support knowledge brokering in European health systems. We review possible reasons why policy-making audiences may not use existing information products, and we present criteria for assessing the quality of information products – criteria that can serve as a guide to more useful communication. We also describe examples of good practice in Europe that we hope will inspire you to improve information products for policy-makers, and we suggest potential next steps for enhancing information-packaging mechanisms in Europe.

This is one of three BRIDGE summaries; the other two are:

• Policy Summary 8 (BRIDGE series): Learning From One Another, which examines interactive knowledge-sharing mechanisms (Lavis, Catallo et al., 2013); and

• Policy Summary 9 (BRIDGE series): Matching Form to Function, which examines organizational models for knowledge brokering (Lavis, Jessani et al., 2013).

Given their closely linked subjects (e.g., some information products feed into interactive knowledge-sharing activities and both depend on effective organizational models), the summaries inevitably overlap and you will notice some common content.

Two related policy briefs complement the BRIDGE summaries. One policy brief examines how knowledge brokering can be advanced in a country's health system (Lavis, Permanand, Catallo, BRIDGE study team, 2013). A second policy brief examines more broadly how knowledge brokering can be better supported across European health systems (Lavis, Permanand, Catallo et al., 2013). Both policy briefs present various options for addressing the problems identified in the BRIDGE study.

About the BRIDGE study

BRIDGE (which stands for Scoping Study of Approaches to **B**rokering Knowledge and **R**esearch **I**nformation to Support the **D**evelopment and **G**overnance of Health Systems in **E**urope) was a two-year project that studied knowledge brokering for health policy-making during 2009–2011. Led by the European Observatory on Health Systems and Policies, the purpose of the study was to map current knowledge-brokering practices in Europe, describe them in the context of what we know and what we don't know about knowledge brokering, and disseminate the findings to different audiences through various events and publications.

In preparing this BRIDGE summary we drew on a framework that we developed and modified over the life of the study, a systematic review of the research literature on what influences the use of health systems information in policy-making, a scoping review of knowledge-brokering mechanisms and models, an assessment of 398 potential knowledge-brokering organizations across 31 countries (the 27 European Union member states and 4 European Free Trade Association member states) and a web site review of 163 organizations deemed eligible (4 of which are global organizations and 17 European-focused), site visits for 28 organizations, and case studies in 4 countries. Our inclusion criteria for the web site review (and hence for the site visits and case studies) meant that we did not include knowledge-brokering organizations that focus primarily on taking political positions or solely on clinical or public health issues (e.g., health technology assessment agencies), or organizations that primarily collect and collate data or that target audiences other than policy-makers within Europe. We did not include organizations that do not put most of their products in the public domain. (Please see the Appendix for additional detail on our inclusion criteria.)

Our discussion of knowledge-brokering organizations and their products and activities reflects the information available during 2009–2010, when we were collecting data for the study. We acknowledge that the organizations have continued to evolve and we encourage readers to explore the web site links provided in this summary.

To learn more about the BRIDGE study, our methods and findings, and other BRIDGE products, please see the full BRIDGE volume (Lavis & Catallo, 2013) and the BRIDGE web pages of the European Observatory on Health Systems and Policies web site.

Context

Policy-making within and about health systems occurs at European, national and sub-national levels. Decisions are being made every day across Europe about a range of issues, all of which can be informed by health systems information (European Commission, 2008). For example, policy-makers and stakeholders may be grappling with:

- which risk factor, disease or condition to focus on (e.g., cancer, cystic fibrosis);
- which programmes, services and drugs to offer/fund/cover (e.g., to address obesity);
- which governance arrangements (e.g., to establish accountabilities), financial arrangements (e.g., to fund long-term care) and delivery arrangements (e.g., to foster teamwork) can help to get the right mix of programmes, services and drugs to those who need them and more generally to organize prevention, care and support; and
- which implementation strategies will best support behaviour change at the level of citizens or patients (e.g., self-management supports), providers (e.g., performance measurement and feedback) and organizations (e.g., through individuals who can span organizational boundaries internally and externally) (Fretheim et al., 2009; Greenhalgh et al., 2004).

Europe has countless statistical agencies, research units and other organizations producing and disseminating health systems information. The health systems information being produced and disseminated by these organizations addresses many of the challenges being faced in health systems and appears, superficially at least, highly topical. So why do we continually hear that health systems information is not being used as frequently or optimally as it could be, even by the international agencies that aim to support policy-making at the country level? (Hoffman, Lavis & Bennett, 2009; Oxman, Lavis & Fretheim, 2007).

One reason is that health systems information is just one of many factors that can influence policy-making processes (Lavis & Catallo, 2013). Other factors like institutions, interests, ideas and external forces also play a significant part in decision-making. For example, when we consider institutional factors that influence policy we might think of government structures (e.g., federal or decentralized versus unitary and centralized government), government policy legacies (e.g., health insurance legislation), and policy networks (e.g., executive council-appointed committees that involve key stakeholders). Interests can include interest groups per se (e.g., medical associations), as well as elected officials, civil servants (in some jurisdictions), and researchers (in some instances)

who might also be advocating for particular decisions. Ideas can include knowledge or beliefs about 'what is' (e.g., health systems information) and views about 'what ought to be' (e.g., values). Finally, external forces can include the release of major reports (e.g., European Commission reports or national commission and enquiry reports), political change (e.g., elections or cabinet shuffles), economic change (e.g., recession), technological change (e.g., new imaging technology), new diseases (e.g., severe acute respiratory syndrome), and media coverage (e.g., hospital waiting times).

These are factors that knowledge brokers cannot control, although a skilled knowledge broker will see that these factors may offer strategic opportunities as to when and how to introduce information products into policy-making processes. A skilled knowledge-brokering organization will recognize that it needs to use information products that fit its policy-making context. A national policy-making context can be considered to be located at the intersection of:

• policy-making institutions and processes;

• stakeholder opportunities and capacities for engagement; and

• 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 features are outlined in Box 2.

To simplify the presentation of these features, we treat each one in an 'either/or' way (a versus b). The reality, of course, is quite different. Policy-making processes may have elements of decision support driven centrally by the president's or prime minister's office and in a decentralized way within ministries. 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 is likely to simplify the landscape for a knowledge-brokering organization while the second one is likely to complicate it.

For example, a knowledge-brokering organization will probably have a much easier time writing in language understandable to policy-makers and stakeholders if there is centralized decision support within government, high capacity for policy analysis within the civil service, and a low turnover rate within the civil service, as well as a high degree of coordination within stakeholder groups and a high capacity for policy analysis within stakeholder groups. In such circumstances, the knowledge-brokering organization is writing for a small, sophisticated readership. Alternatively, a knowledge-brokering organization will spend a great deal more time and resources to write in language understandable

Box 2: Attributes of the national policy-making context that can influence knowledge brokering

Salient features of **policy-making institutions and processes** could include:

- unitary versus federal state

- centralized versus distributed authority for making decisions about priority problems, policy/programme options, and implementation strategies

- single-party versus coalition government

- infrequent versus frequent turnover of the governing party/coalition and leaders in it

- civil service versus political party influence over decision support within government

- centralized versus decentralized decision support within government

- high versus low capacity for policy analysis within the civil service

- low versus high turnover rate within the civil service

- significant versus limited resources to commission support outside the civil service

Salient features of **stakeholder opportunities and capacities for engagement** could include:

- formal, significant versus informal, limited role of stakeholders in policy-making

- high versus low degree of coordination within stakeholder groups

- high versus low autonomy of stakeholder groups from government and from narrow interests within their own memberships

- high versus low capacity for policy analysis within stakeholder groups

- significant versus limited resources to commission support outside the groups

Salient features of **research institutions, activities and outputs** could include:

- small versus large numbers of strong research institutions involved in the production, packaging and sharing of health systems information

- large versus small scale of research institutions

- explicit versus implicit mandate for and resource commitment to knowledge-brokering (not just research) activities and outputs

In addition, **general features** of the national policy-making context could include:

- English (the language of most health systems information) is versus isn't spoken in addition to local languages

- small ('everyone knows each other') versus large size of the population

- high versus low rates of Internet use

- high versus low capacity of local news media for objective reporting

to policy-makers and stakeholders if those groups are very heterogeneous in terms of their understanding of the issues because decision support is decentralized within government, stakeholders are poorly coordinated, capacity for policy analysis is low among both groups, and most of the civil servants are new to the domain.

While we focus here on national policy-making contexts, the same points hold true at European and sub-national levels when a knowledge-brokering organization is focused at one of those levels. For example, an organization preparing information products to inform policy-making at the European Union (EU) level must consider the same features described in Box 2 but with a focus on EU policy-making institutions and processes and on stakeholders and research institutions operating at the EU level.

However, even knowledge-brokering organizations focused on national and sub-national levels need to respond to regional and global contexts. An organization's decision to adopt or adapt an information-packaging mechanism used elsewhere in the region, or to adapt, re-package or translate a series of information products prepared elsewhere in the region, is likely to be influenced by the degree of local support for the diffusion of innovations and policy transfer and by how cooperative or competitive relations are between countries. This decision may also be influenced by the presence or absence of global networks (such as exist with health technology assessment agencies) that promote and support cross-national learning.

From the perspective of a knowledge-brokering organization, the central challenge is to find ways to match its information-packaging mechanism to its national policy-making context given the specifics of that context, the European policy-making atmosphere in which it operates, and the global milieu in which it is located.

But even when we consider health systems information as just one of many inputs to decision-making, we must also recognize that policy-makers and stakeholders may not value health systems information and may see it as not relevant to the policy issues they face. In Box 3 we outline four broad challenges associated with knowledge brokering to support policy-making. (In this BRIDGE summary, we focus on the first two of these issues, which can be addressed, at least in part, through information-packaging mechanisms.) To foster discussion on the benefits of better knowledge brokering, we suggest in Box 4 what success might look like if information-packaging mechanisms were significantly enhanced across Europe.

Box 3: Challenges for knowledge brokering

Broadly speaking, knowledge brokering to support health systems policies faces four big challenges:

- Health systems information isn't communicated effectively (e.g., policy-makers and stakeholders hear 'noise' instead of 'music' coming from those producing health systems information) (i.e., wrong 'unit' of focus).

- Health systems information isn't available when policy-makers and stakeholders need it and in a form that they can use (i.e., wrong time and wrong packaging).

- 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.

- Policy-makers and stakeholders lack opportunities to discuss system challenges with researchers.

Box 4: Success measures for knowledge brokering

Measures of success in addressing these challenges could include:

- greater use of 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)

- better decisions within and about health systems

- improved health (although attribution challenges make this very difficult to assess; it may be impossible to prove that a given information-packaging or knowledge-sharing mechanism had an explicit impact on a given policy decision)

Problem

The overarching problem with most existing information-packaging mechanisms is that they rely on traditional scientific formats and are not prepared in a way that makes it easy for policy-makers and stakeholders to understand and use them. Through the BRIDGE study we documented the various types of information product being used by knowledge-brokering organizations in Europe. Drawing on our framework and systematic review (both are presented in the BRIDGE volume, Lavis & Catallo, 2013), we were able to describe a number of challenges with those mechanisms that are being used most frequently, and we identified a number of possible explanations for these challenges.

Only a few types of information-packaging mechanism are commonly used

In the BRIDGE study, we found that the most common types of product made publicly available on the web sites of knowledge-brokering organizations in Europe included, in order of frequency:

• research reports;

• newsletters;

• annual reports;

• books;

• scientific journal articles; and

• presentations.

This distribution may not reflect the most common types of product put out by these organizations. For example, staff in many if not all of these organizations are likely to produce journal articles but the organization may not post them on their web sites because of concerns about copyright infringements (given that publishers, not authors, have historically tended to hold the copyright to journal articles) or a belief that such articles are publicly available through bibliographic databases such as PubMed when this may not always be the case. Similarly, many of these organizations are likely to prepare presentation slide decks but may not post them because of concerns about harming their chances of publishing the findings (by releasing them before publication) or about breaching confidentiality provisions set by their target audience (who may not want to publicize what policy issue they are grappling with before they have time for reflection among a closed group of advisers).

We cannot speculate as to whether the list above matches the distribution of products used by their target audiences (either across Europe, which is what the ordering is based on, or within a given country or sub-region). However, our on-site visits to several of these organizations suggest some relationship between what products the knowledge-brokering organizations are choosing to make available and what policy-makers and stakeholders in their country, sub-region or region expect or are able to use. If the prevailing thinking is that traditional research reports are acceptable, knowledge-brokering organizations are likely to continue producing them. If policy-makers and stakeholders also request more innovative types of product, knowledge-brokering organizations are likely to experiment with new approaches (such as video podcasts).

The common mechanisms share a number of challenges

A number of features of information-packaging mechanisms can make them difficult for policy-making and stakeholder audiences to use. This can occur when the information product:

- does not target a policy-maker and stakeholder audience in all aspects of its design and execution;

- focuses on the output of a single research project rather than on a body of health systems information on a defined topic or without putting the single study in the context of a body of health systems information (e.g., systematic review);

- focuses on either a problem or a policy objective, or on options for addressing a problem or achieving a policy objective, or on key implementation considerations related to the policy options, but not on all three of them or without acknowledging the importance of the other two;

- does not originate from an issue raised by policy-makers and stakeholders and/or is not timed to relate explicitly to a policy-making process or to requests from policy-makers;

- is not reviewed by policy-makers and stakeholders prior to publication;

- uses complex scientific language or jargon;

- is presented as a full article or report without strategies to highlight the key pieces of policy-relevant information;

- does not explicitly outline decision-relevant elements (e.g., for options a discussion of their benefits, harms and costs);

- does not make use of a graded-entry approach (e.g., one page of key messages and a two-page summary, followed by a more in-depth report) that allows policy-makers and stakeholders to scan across many products efficiently and to choose the depth at which to read any single product; and

- is not supported by strategies to disseminate the product to policy-makers and stakeholders or to engage them again (e.g., through an e-mail alert/listserv) when new health system information is released.

These challenges may share common roots

There are a number of possible explanations for the challenges outlined above:

- Funding agencies may be creating the wrong incentives or requirements for researchers to produce health systems information. For example, funding may encourage a focus on single studies as the unit of dissemination rather than evidence syntheses that use a wide range of material.

- Researchers may lack knowledge about promising mechanisms and/or capacity and support to execute them.

- Knowledge brokers may have to serve many roles (e.g., writer, graphic designer, web site programmer, listserv moderator, media tracker and customer relations manager) and may not have time to learn about or execute promising mechanisms.

- Policy-makers and stakeholders may lack knowledge about promising mechanisms and/or capacity to request them.

In considering these challenges, it can be helpful to understand that policy-making and research are two domains with different goals and incentives, despite their common interest in improving health systems.

- Policy-makers (and health system managers) ideally use data generated by health systems to inform which problems they focus on, which options they choose to address key problems, and which implementation strategies they consider. The goals here may be related to processes (e.g., more patients seen) or outcomes (e.g., improved health status), and incentives are more often tied to the former than the latter.

- Researchers may use the data generated by health systems or they may collect it themselves, and they do so in the context of research projects that generate the outputs that can be a source of information for health systems. The goals here may be process-related (e.g., more research reports written or more research grants received) or outcome-related (e.g., improved decision-making about health systems), and incentives are again more often tied to the former than the latter.

In thinking about how to improve knowledge brokering to support health systems policy, a useful first step may be to consider whether existing goals and incentives in these two worlds are aligned with the goals and objectives of information products (the focus of the next section).

Building blocks for effective information packaging

Based on learnings from the BRIDGE study, we have identified possible features of information packaging that can be combined in various ways to more effectively convey health systems information to policy-makers and stakeholders. These features can be thought of as criteria to assess existing information products, as we did in the BRIDGE study, and as building blocks to create promising mechanisms that package information for policy audiences in innovative ways, which some organizations have done.

This section summarizes our findings and suggests ways this thinking might be used. We do not consider these points the definitive answer to better information products; we offer them to promote reflection and spur discussion and debate.

Think about what information-packaging mechanisms need to do

If the goal of information-packaging mechanisms is to support policy-making, they will need to meet certain objectives. For example, information-packaging mechanisms could:

- gather all relevant health systems information into one place (e.g., problem, options and implementation considerations);
- contextualize health systems information for a given jurisdiction (e.g., background on the policy context, local data, assessments of local applicability of the evidence); and
- make health systems information easier to understand and use (eg., plain language, bullets, graded entry).

Many existing information products are unlikely to achieve these objectives.

Consider the BRIDGE criteria to assess your current information-packaging mechanisms

With these objectives in mind, we have identified 11 criteria that can be used to assess an information-packaging mechanism. We group these criteria under five broad headings in Box 5.

Whatever your role in the support, creation or use of knowledge brokering, consider how the information mechanisms you encounter would fare against these criteria. Given the specific objectives of your activities, as well as the context in which you're working (prompted by a review of Box 2), how would addressing each of these criteria enhance your information products? Keep in mind that various objectives may warrant giving more weight to some criteria than others.

Compare how existing mechanisms perform against these criteria

To understand the potential for innovation that might be inherent in various types of information-packaging mechanism, we assessed the following eight types against the criteria outlined in Box 5:

1. scientific journal article or report describing findings from a single study;
2. summary of an article or report describing findings from a single study;
3. scientific journal article or report describing findings from a systematic review;
4. summary of an article or report describing findings from a systematic review;
5. compendium of summaries;
6. issue note;
7. policy brief; and
8. policy dialogue report.

Box 5: Criteria to assess an information-packaging mechanism

What it covers

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)

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)

What it includes

3. draws on synthesized (global) research evidence that has been assessed for its quality and local applicability, as well as local data and studies

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

For whom it's targeted

5. targets policy-makers and stakeholders with an explicit statement about them being a key audience (not just a policy implications section)

6. engages policy-makers and stakeholders (not just researchers) in reviewing the product's relevance and clarity

How it's packaged

7. organized in a way that facilitates the identification of decision-relevant information, such as the benefits, harms and costs of policy/programme options

8. written in language understandable to policy-makers and stakeholders

9. prepared in a format that is readily appreciated by policy-makers and stakeholders, such as a graded-entry format

How its use is supported

10. contextualized through online commentaries or briefings provided by policy-makers and stakeholders

11. brought to attention of target audiences through e-mail alerts/listservs

Table 1 summarizes what we found, with an X indicating that most examples we examined for a product type (1–8) met the criterion. No mechanism met more than eight of the criteria, and only four types are organized to highlight information most relevant for decision-making. Only one type (8, policy dialogue report) incorporates input from policy-makers and stakeholders, and none is typically supported through online commentaries or briefings that can provide more context.

We acknowledge that in focusing on these eight mechanisms we may have inadvertently emphasized text-based approaches. This may reflect that many of the more visual or multi-media information products (e.g., cartoons, podcasts and videos) are being pioneered by advocacy groups that would not have met our inclusion criteria for the BRIDGE study. It may also be due to the fact that many of the more established knowledge-brokering organizations in Europe still rely primarily on text-based approaches, or that policy-makers in Europe prefer them.

Our assessments are based on many real-world examples of each type of information product from across Europe (see Box 6 for more on our methods). In some cases, we found innovative mechanisms that met the criteria in creative ways and embodied different combinations of features. In the next section, we highlight five types of innovative example and, based on the BRIDGE research, describe their strengths and suggest ways they could be further improved.

Table 1: An assessment of information-packaging mechanisms against the BRIDGE criteria

Criteria	Types of information-packaging mechanism							
	1	2	3	4	5	6	7	8
What it covers								
1. addresses a topical/relevant issue					X	X	X	X
2. addresses the many features of an issue					X	X	X	X
What it includes								
3. draws on synthesized, assessed research evidence			X	X		X	X	
4. incorporates policy-maker and stakeholder input								X
For whom it's targeted								
5. targets policy-makers and stakeholders		X		X	X	X	X	X
6. engages policy-makers and stakeholders in merit review						X	X	
How it's packaged								
7. organized to highlight decision-relevant information				X	X	X	X	
8. written in understandable language		X		X	X	X	X	X
9. prepared in a format that is readily appreciated				X	X	X	X	X
How its use is supported								
10. contextualized through online commentaries or briefings								
11. brought to attention through e-mail alerts/listservs				X				

Box 6: How did we assess BRIDGE data against these criteria?

- Data for 163 eligible knowledge-brokering organizations in 31 countries were collected through a web site review followed by an in-depth site visit for a sample of 28 organizations.
- Criteria to assess the eligibility of the organization for the BRIDGE study are found in the Appendix.
- To assess innovativeness in information packaging, each mechanism was reviewed against the criteria in Box 5. The review was conducted by one BRIDGE study team member for all 163 organizations and by two BRIDGE study team members for the 28 organizations that were the focus of site visits. Differences between the two assessors were resolved through discussion. A third BRIDGE team member was consulted for a final decision when the two assessors could not obtain agreement.

Five innovative examples that others could adopt or adapt

We have identified five innovative types of information-packaging mechanism that meet many of the BRIDGE criteria outlined in Box 5. For each type of mechanism, we provide:

- an innovative example(s) of a series, and links so the series can be explored;
- an innovative example(s) of a product in one series, and links so the product can be examined;
- an assessment of the strengths of the product, based on how well it meets the criteria in Box 5; and
- an assessment of how the product might be improved so that it meets more of the applicable criteria.

Our aim here is not to say that these are unquestionably the best mechanisms or the best examples of mechanisms. It is far too early in the generation of evidence about information-packaging mechanisms to make such a bold statement. Instead we hope to encourage others to adopt or adapt these mechanisms and rigorously evaluate them, as we believe that they represent promising approaches based on the criteria that the BRIDGE study led us to identify. Our aim is also to spark the creation of new mechanisms that meet some of the same or even different criteria. The examples here are primarily print mechanisms because they are by far the types of mechanism we found most commonly used. Other media such as videos and cartoons may provide additional opportunities for innovation.

It is important to note that work profiled here comes from organizations that emphasize their knowledge-brokering function and therefore embody a diversity of elements that are addressed in all three BRIDGE summaries. Here we focus on their information-packaging mechanisms, however, readers interested in their interactive knowledge-sharing mechanisms and organizational models may find a promising example of each of these described in detail in BRIDGE Summary 2 and BRIDGE Summary 3, respectively.

1) Study summary

A study summary can be a summary of an article or report that describes findings from a single study.

A good example is the executive summaries of reports by the Federaal Kenniscentrum voor de Gezondheidszorg (KCE)/Centre fédéral d'expertise des soins de santé (KCE)/Belgian Health Care Knowledge Centre (KCE). These executive summaries provide both a summary of the scientific report (which is typically written in English by researchers) and a summary of the recommendations endorsed by KCE's executive board (which is comprised of policy-makers and stakeholders). The KCE executive summaries are typically written in Dutch and French, and (occasionally before 2008 and always since 2008) in English as well. They are included in the overall report and not disseminated as a stand-alone product. The KCE series can be viewed online, as can an example of a product in the series. (This example focuses on drug-reimbursement systems.) KCE is profiled for its organizational model in BRIDGE Summary 3.

The KCE study summary series, like many other similar series, has a number of key strengths:
• targets policy-makers and stakeholders;
• written in understandable language; and
• prepared in a format that is readily appreciated.

One significant additional strength of the KCE series, and something that makes it relatively unique, is how it incorporates policy-maker and stakeholder input (in the form of their recommendations) as a distinct part of the executive summary. This adds value above and beyond the research project, yet keeps the research findings separate from an interpretation of their local implications.

Although promising, study summaries can only be as helpful in decision-making as the research studies on which they're based. A KCE executive summary, like many other study summaries, typically:
• does not address a topic/relevant issue as soon as it emerges, given the time delay between policy-makers and stakeholders prioritizing a topic and KCE researchers conducting and reporting the study;
• does not systematically cover all aspects of a problem, policy or programme options and implementation considerations but instead focuses in detail on one or two of these aspects of an issue; and
• does not put the single study in the context of a body of health systems information.

These are justifiable features of study summaries, given their basis in research studies, and don't necessarily warrant change.

A KCE executive summary, again like many other study summaries, also typically:

• is not reviewed independently by policy-makers and stakeholders prior to publication (at least not the scientific aspects of the report);
• is not organized to highlight key information for decision-making (e.g., a discussion of the benefits, harms and costs of options presented);
• is not contextualized through online commentaries or briefings; and
• is not brought to the attention of policy-makers and stakeholders through e-mail alerts/listservs that they can sign up for in their areas of interest.

These features constitute potential areas of improvement for many series. In addition, knowledge-brokering organizations could prepare study summaries using studies drawn from a broad range of sources and not just from their own organization, as is much more commonly done for systematic reviews, a subject to which we turn now.

2) Systematic review summary

A systematic review is a review that takes steps to be systematic and transparent in identifying, selecting, appraising and synthesizing studies (as opposed to a narrative review in which it's not clear which databases were searched, what inclusion criteria were used, or what data were extracted). A document that summarizes an article or report describing the findings from a systematic review is known as a systematic review summary.

A good example is the structured summaries of systematic reviews prepared by the SUPporting POlicy Relevant reviews and Trials (SUPPORT) collaboration. The SUPPORT summaries provide key background information needed to understand the findings of a systematic review, a summary of what the review authors searched for and found, a detailed summary of the main findings of the review, including an assessment of the quality of evidence for those findings, and an assessment of the relevance of the review, including local applicability considerations, equity considerations, economic considerations, and the need for monitoring and evaluation. While the SUPPORT collaboration has been led from a base in Europe and funded by the European Commission, its focus is low- and middle-income countries rather than European countries. The series can be viewed online, as can an example of a product in the series. (This example focuses on pay for performance.)

Other good examples from Europe include the structured summaries contained in the Database of Abstracts of Reviews of Effects (DARE), Centre for Reviews and Dissemination, The University of York and the structured summaries prepared by the Health Evidence Network (HEN), European Regional Office, World Health Organization (although not all of the HEN summaries are summaries of systematic reviews). These and other systematic review summaries are linked to from Health Systems Evidence, an online, open-access

repository of systematic reviews about health systems arrangements and implementation strategies.

The SUPPORT systematic review summary series, like other similar series, has a number of key strengths:

- draws on synthesized, assessed research evidence;
- targets policy-makers and stakeholders;
- organized to highlight decision-relevant information;
- written in understandable language;
- prepared in a format that is readily appreciated; and
- brought to the attention of policy-makers and stakeholders through e-mail alerts/listservs that they can sign up for. (Although signing up by area of interest is not available, users can be alerted about all newly prepared or updated SUPPORT summaries; in addition, Health Systems Evidence allows policy-makers and stakeholders to sign up for monthly evidence updates in defined topic areas, and any available systematic review summaries, including SUPPORT summaries, can be linked to from these evidence updates.)

The SUPPORT series is particularly notable for the extent to which it is organized to highlight decision-relevant information. As noted above, these summaries comment on the quality of the evidence (not just the quality of the review) as well as considerations related to local applicability, equity, economics and monitoring and evaluation. One additional strength of the SUPPORT series, and something that makes it relatively unique, is how policy-makers are engaged in the merit review of draft summaries. This helps to ensure that the summaries are written in understandable language and more generally meet their needs.

The DARE summaries are notable for how they highlight the conclusions of the review authors, methodological limitations of the review, and implications for practice and research (although not consistently for policy). The HEN summaries are notable for how they highlight the nature of the policy issue, the potential options to address the problem and relevant implementation considerations for the European context.

While they are another promising development, systematic review summaries can only be as helpful in decision-making as the systematic reviews on which they're based. A SUPPORT summary, like many other systematic review summaries, typically:

- does not originate from an issue raised by policy-makers and stakeholders or, if it does, it focuses on particular aspects of the issue that lend themselves to a focused systematic review;
- does not incorporate policy-maker and stakeholder input; and
- does not cover a problem, policy options and implementation considerations but instead focuses in detail on one feature of an issue (and typically on the effectiveness of a single option for addressing a problem).

These are justifiable features of systematic review summaries, given their basis in systematic reviews, and don't necessarily warrant change.

A SUPPORT summary, again like other systematic review summaries, also typically is not contextualized through online commentaries or briefings, which is a potential area of improvement for many series.

3) Thematically focused compendium of summaries

A compendium of summaries is a thematically focused grouping of summaries of articles or reports that describes findings from single studies, systematic reviews or both. By bringing together a range of perspectives on one issue, a compendium offers a range of insights in a single document; this mechanism can save a great deal of effort for people seeking this information, provide them with an opportunity to look at the issue across time or jurisdictions, and may help them identify a nascent network of others interested in the same issue who might profitably be linked together.

A good example is the compendium of summaries prepared by Organisatie voor gezondheidsonderzoek en zorginnavatie (ZonMw)/Organization for Health Research and Development (ZonMw) in the Netherlands. The compendium, which the organization calls a 'quickscan of ZonMw programmes', draws together a set of summaries about projects it has funded that identify ways to save money while retaining quality. While the compendium may be updated annually and become a series over time, at present only the first example of such a thematically focused compendium of summaries is available. We describe ZonMw's organizational model as a promising example in BRIDGE Summary 3.

The ZonMW compendium of summaries has a number of key strengths:
• originates from an issue raised by policy-makers and stakeholders (in this case, a desire to save money while retaining quality);
• covers a problem, policy options and implementation considerations (at least insofar as funded projects have done so);
• targets policy-makers and stakeholders;
• organized to highlight decision-relevant information;
• written in understandable language; and
• prepared in a format that is readily appreciated.

Although it is another promising development, the ZonMW compendium does not meet all of the BRIDGE criteria in that it:

• draws on synthesized, assessed research evidence only insofar as funded projects include systematic reviews;
• does not incorporate policy-maker and stakeholder input;
• is not reviewed by policy-makers and stakeholders prior to publication;
• is not contextualized through online commentaries or briefings; and

- is not brought to the attention of policy-makers and stakeholders through e-mail alerts/listservs that they can sign up for.

All of these domains constitute potential areas of improvement for this and other compendia.

4) Policy brief

A policy brief is a report that begins with a policy issue and mobilizes the relevant synthesized research evidence about the underlying problem(s), policy or programme options for addressing the problem(s), and related implementation considerations. Identifying such products can be challenging because many products are called policy briefs but do not meet this definition, while others meet the definition but are called by a different name (for example, many organizations are now calling them evidence briefs or evidence briefs for policy).

A good example of policy briefs as we've defined them are those prepared through a collaboration between the Health Evidence Network (HEN), European Regional Office, World Health Organization and the European Observatory on Health Systems and Policies. The series can be viewed online, as can an example of a product in the series that is particularly good at a clear delineation of options. (This example focuses on addressing gender equity through health systems.) A second example of a product in the series, also available online, is particularly good at mobilizing relevant synthesized research evidence. (This example focuses on creating conditions for adapting physicians' skills to new needs and lifelong learning.) With respect to its organizational model for knowledge brokering, the European Observatory on Health Systems and Policies is also profiled in BRIDGE Summary 3.

Another good example of a policy brief from Europe is the first policy brief in a planned series by the Nasjonalt Kunnskapssenter for Helsetjenesten (NOKC)/Norwegian Knowledge Centre for the Health Services (NOKC), whose organizational model is described in BRIDGE Summary 3. Examples from outside the region include the policy briefs produced by the WHO-sponsored Evidence-Informed Policy Networks (EVIPNet) and the evidence briefs produced by the McMaster Health Forum. These latter three series are each designed specifically to inform policy dialogues (a type of interactive knowledge-sharing mechanism, the subject of BRIDGE Summary 2).

The HEN/Observatory policy brief series has a number of key strengths:
- originates from an issue raised by policy-makers and stakeholders;
- provides broad coverage of a problem, policy or programme options and implementation considerations (although the options are not explicitly laid out in all briefs);

- draws on synthesized (and assessed) research evidence (although not consistently across all briefs);
- targets policy-makers and stakeholders;
- organized to highlight decision-relevant information (but again not consistently across all briefs);
- written in understandable language;
- prepared in a format that allows for easy scanning of key information; and
- are brought to attention through e-mail alerts/listservs that policy-makers and stakeholders can sign up for.

The policy briefs produced by EVIPNet and the McMaster Health Forum are more consistent in their articulation of options, use of synthesized research evidence, and highlighting of decision-relevant information.

While they are yet another promising development, the HEN/Observatory policy briefs typically:

- do not incorporate policy-maker and stakeholder input;
- are not reviewed by policy-makers and stakeholders prior to publication; and
- are not contextualized through online commentaries or briefings.

The first two domains are addressed in the policy briefs produced by the McMaster Health Forum, which conducts roughly 20 key informant interviews to shape the terms of reference for the policy brief, prepares a complementary dialogue summary report (as described below), and engages at least one policy-maker and at least one stakeholder as merit reviewers for draft policy briefs. The third domain constitutes a potential area of improvement for all series.

5) Policy dialogue report

A policy dialogue report is a report that describes the insights derived from a policy dialogue where policy-makers, stakeholders and researchers deliberate about a policy issue, ideally informed by a pre-circulated policy brief and organized in a way that allows for a full airing of the participants' tacit knowledge and real-world views and experiences. These reports go well beyond a standard meeting report, and at their best have the potential to generate profound insights about how a range of people likely to be involved in or affected by decisions about the policy issue might approach the issue and options to address it.

A good example is the policy dialogue reports prepared by the Estonian think tank Poliitikauuringute Keskus (PRAXIS)/Centre for Policy Studies (PRAXIS). The series, which translates as 'morning of thoughts' (the dialogues are half-day sessions starting early in the day), can be viewed online, as can an example of the brief products in the series. (This example focuses on how to accelerate the use of e-health information technology in Estonia.) PRAXIS is profiled for its organizational model for knowledge brokering in BRIDGE Summary 3.

A good example of a policy dialogue report series from outside Europe is the policy dialogue reports produced by the McMaster Health Forum. These reports document the full range of deliberations about a problem, policy or programme options for addressing the problem(s), related implementation considerations, and possible next steps for different constituencies.

The PRAXIS policy dialogue report series has a number of key strengths:
• originates from an issue raised by policy-makers and stakeholders;
• covers a problem, policy options and implementation considerations;
• incorporates policy-maker and stakeholder input;
• targets policy-makers and stakeholders;
• written in understandable language; and
• prepared in a format that is readily appreciated.

While they are yet another promising development, the PRAXIS policy dialogue reports usually:

• are not reviewed by policy-makers and stakeholders prior to publication;

• are not organized to highlight decision-relevant information;

• are not contextualized through online commentaries or briefings; and

• are not brought to the attention of policy-makers and stakeholders through e-mail alerts/listservs that they can sign up for.

All of these points suggest potential areas of improvement for this and other policy dialogue report series.

Next steps within Europe

Possible next steps to enhance the packaging of health systems information across Europe include:

• support for translation of products likely to be applicable across contexts into a number of different languages (e.g., systematic review summaries, all of which at present are written in English and only some of which have been translated into another language; for example, the SUPPORT summaries are also available in Spanish);

• support for adoption/adaptation of existing information-packaging mechanisms among policy-maker audiences and knowledge-brokering organizations;

• further innovation as defined by the criteria in Box 5; and

• ongoing evaluation to assess current and new mechanisms. This could include formative evaluations whereby knowledge-brokering organizations create, adopt or adapt information products, solicit feedback about them from policy-makers and stakeholders and monitor their use of the products, and continually improve them. Evaluation could also take the form of summative evaluations, whereby knowledge-brokering

organizations examine the impact that information products are having, with reference to measures suggested in Box 4.

Funders, knowledge brokers, policy-makers and stakeholders can all contribute to these next steps.

• Funders can fund or directly undertake translation of information products, fund or create learning/sharing opportunities for knowledge-brokering organizations (e.g., conferences, workshops, mentoring and networking), innovate in their own information products, and fund both formative and summative evaluations.

• Knowledge-brokering organizations can contribute to translation activities (possibly through a distributed model like the one used by Evidence Updates for assessments of relevance and newsworthiness), participate in learning/sharing opportunities, innovate in their own information products, and participate in evaluations of information products.

• Researchers could assist these knowledge-brokering organizations by permitting their work to be the focus of information products, participating in the creation of these information products, and permitting these products to be translated into other languages. A subset of researchers with particular interests in knowledge brokering could lead evaluations of information products.

• Policy-makers can learn about what expectations to set through learning/sharing opportunities, communicate their expectations about information products (including their translation) and participate in evaluations.

The clearest opportunities to add value through European action (in addition to national action, and in comparison to global action) are in support for translation and for evaluation, as well as in funding learning/sharing conferences and networks that bring together a nascent community of European knowledge brokers who can showcase their own innovations and learn from others. While many information products are appropriately targeted at the national level, there are economies of scale that could accrue from a Europe-wide focus on translation of products that may be useful in other countries, learning/sharing across European borders, and evaluation of a range of products from across Europe but using a common evaluation framework. At the same time, some information products are appropriately targeted at the European level where only a Europe-wide focus would make sense.

Additional thoughts about possible next steps can be found in the two BRIDGE policy briefs. While the first policy brief focuses on how knowledge brokering can be advanced in a country's health system (Lavis, Permanand, Catallo, BRIDGE study team, 2013), action at the European level could include supporting the types of activity described in the policy brief. The second policy brief examines more directly how knowledge brokering can be better supported across European health systems (Lavis, Permanand, Catallo et al., 2013).

References

European Commission (2008). *Scientific evidence for policy-making*. Brussels, Belgium: European Commission, Directorate-General for Research (EUR 22982 EN).

Fretheim A, Munabi-Babigumira S, Oxman AD, Lavis JN, Lewin S (2009). SUPPORT Tools for evidence-informed health Policymaking (STP). 6. Using research evidence to address how an option will be implemented. *Health Research Policy and Systems*, 7(Suppl 1):S6 doi:10.1186/1478-4505-7-S1-S6.

Greenhalgh T, Robert G, Macfarlane F, Bate P, Kyriakidou O (2004). Diffusion of innovations in service organizations: Systematic review and recommendations. *Millbank Quarterly*, 82(4):581–629.

Hoffman SJ, Lavis JN, Bennett S (2009). The use of research evidence in two international organizations' recommendations about health systems. *Healthcare Policy*, 5(1):66–86.

Lavis JN (2009). How can we support the use of systematic reviews in policymaking? *PLoS Medicine*, 6(11): e1000141. doi:10.1371/journal.pmed.1000141.

Lavis JN, Catallo C, editors (2013). *Bridging the worlds of research and policy in European health systems*. Copenhagen, WHO Regional Office for Europe.

Lavis JN, Catallo C, Jessani N, Permanand G, Zierler A, BRIDGE Study Team (2013). *Policy Summary 8 (BRIDGE series): Learning from one another: Enriching interactive knowledge-sharing mechanisms to support knowledge brokering in European health systems.* Copenhagen, WHO Regional Office for Europe.

Lavis JN, Jessani N, Permanand G, Catallo C, Zierler A, BRIDGE Study Team (2013). *Policy Summary 9 (BRIDGE series): Matching form to function: Designing organizational models to support knowledge brokering in European health systems*. Copenhagen, WHO Regional Office for Europe.

Lavis JN, Oxman AD, Lewin S, Fretheim A (2009). SUPPORT Tools for evidence-informed health Policymaking (STP). Introduction. *Health Research Policy and Systems*, 7(Suppl 1):I1 doi:10.1186/1478-4505-7-S1-I1.

Lavis JN, Oxman AD, Moynihan R, Paulsen E (2008). Evidence-informed health policy: 1. Synthesis of findings from a multi-method study of organizations that support the use of research evidence. *Implementation Science*, 3:53.

Lavis JN, Permanand G, Catallo C, BRIDGE Study Team (2013). *Policy Brief 16 (BRIDGE series): How can knowledge brokering be better supported across European health systems?* Copenhagen, WHO Regional Office for Europe.

Lavis JN, Permanand G, Catallo C, BRIDGE Study Team (2013). *Policy Brief 17 (BRIDGE series): How can knowledge brokering be advanced in a country's health system?* Copenhagen, WHO Regional Office for Europe.

Lomas J (2007). The in-between world of knowledge brokering. *BMJ*, 334:129–132.

Oxman AD, Lavis JN, Fretheim A (2007). Use of evidence in WHO recommendations. *Lancet*, 369(9576):1883-9 doi:10.1016/S0140-6736(07)60675–8.

Appendix

Inclusion criteria for knowledge-brokering organizations in the BRIDGE study

This is a copy-edited version of this study instrument, but no substantive changes have been made.

Knowledge-brokering organizations included in the BRIDGE study should have the following characteristics:

- fund, conduct or disseminate research;
    - Exclude lobby groups and think tanks that support political activities but do not employ systematic methods and do not report their methods and findings transparently.
- focus at least in part on governance, financial and delivery arrangements within health systems;
    - Exclude units that focus solely on *clinical* programmes, services or drugs (and other technologies) or on *public health* programmes and services, and not on how clinical or public health programmes and services are governed, financed/funded and delivered.
    - Note that this means guideline-producing organizations and health technology assessment agencies, which are routinely studied, are not covered.
- identify policy-makers as being among the target audiences for their research;
    - Exclude units that focus solely on supporting the use of decision aids by patients, increasing the consumption of particular prescription drugs by patients, supporting the uptake of practice guidelines by clinicians, and improving the prescribing of particular drugs by clinicians.
- function as a semi-autonomous or autonomous organization;
    - Exclude university departments that do not have some independence, but include, for example, an institute with an external advisory council.
- put all (or almost all) of their products in the public domain (whether or not there is a small charge) in order to advance the public interest;
    - Exclude consulting firms that produce reports for clients in order to advance the clients' commercial interests but do not make the report publicly available.
    - Also exclude government strategy units that advance the public interest but do not make their reports publicly available.
- add value beyond the simple collection and collation of data; and
    - Exclude statistical agencies that do not have a semi-autonomous unit that produces analytical reports based on the data collected or collated by the agency.
- target member states of the European Union or European Free Trade Association, groupings of these states, or constituent units of these states above the level of municipality (e.g., provinces, counties).
    - Exclude units serving only the needs of city councils (with the exception of Finland, where health care is a municipal responsibility).

BRIDGE (Scoping Study of Approaches to Brokering Knowledge and Research Information to Support the Development and Governance of Health Systems in Europe) was a two-year study that studied knowledge brokering for health policy-making during 2009–2011. Led by the European Observatory on Health Systems and Policies, the purpose of the study was to map current knowledge-brokering practices in Europe (across the 27 European Union member states and 4 European Free Trade Association countries), describe them in the context of what we know and what we don't know about knowledge brokering, and disseminate the findings to different audiences through various events and publications.

The European Observatory on Health Systems and Policies is a partnership that supports and promotes evidence-based health policy-making through comprehensive and rigorous analysis of health systems in the European Region. It brings together a wide range of policy-makers, academics and practitioners to analyse trends in health reform, drawing on experience from across Europe to illuminate policy issues. The Observatory's products are available on its web site.

(http://www.healthobservatory.eu).