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Chapter 9

Knowledge brokering in Spain: matching brokering mechanisms to policy processes

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The authors declare that they have no commercial interests relevant to this chapter. One author has been affiliated with one of the organizations that is described in the chapter; however, members of the BRIDGE study team who do not hold these affiliations reviewed this description and suggested any necessary modifications to it. The funder played no role in the selection and study of the policy-making processes profiled in the chapter or in the writing of the chapter.

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Key messages

Key attributes of the national context for knowledge brokering in Spain

- Spain is a federal state with frequent turnover of its governments (and, typically along with them, the senior ranks of the civil service) and markedly decentralized authority for making decisions, which provides a constantly changing audience for knowledge-brokering organizations to target, particularly if they are focused at both national and subnational levels.

- Health system stakeholders have an informal role in policy-making and are not a target audience on a par with policy-makers for most organizations included in the BRIDGE study.

- A small to medium number of strong research institutions are engaged in research; however, their mandate for knowledge brokering is often implicit and their resources limited.

- Language differences often mean that documents from outside Spain have little direct impact.

Knowledge brokering mechanisms and models in use

- Twelve Spanish knowledge-brokering organizations were included in the BRIDGE study.

- The organizations tended to use fairly traditional information-packaging mechanisms and interactive knowledge-sharing mechanisms. Some of the more innovative information products target policy-makers explicitly and are written in a language designed to be accessible to them (and to stakeholders). Also, some are timed to relate to policy-making processes or to requests from policy-makers.

- On their websites, the 12 organizations did not provide much description of their organizational models or their approaches to monitoring and evaluation.

Spotlight on selected knowledge-brokering organizations

- Three knowledge-brokering organizations are in some respects unique in their engagement in knowledge brokering, although each has quite specific areas of focus and target audiences:

    1. Avedis Donabedian Foundation (*La Fundación Avedis Donabedian*, FAD);

2. Spanish Society of Public Health and Health Administration (*La Sociedad Española de Salud Pública y Administración Sanitaria*, SESPAS); and

3. Observatory of European Health (*Observatorio de Salud en Europa*, OSE), Andalusian School of Public Health.

Examples of intersections with policy-making processes

- Three case studies were chosen to illustrate how knowledge-brokering organizations such as FAD, SESPAS and OSE influence policy-making. The case studies describe:
  - improving the performance of health and social care organizations at the regional level
  - developing anti-tobacco policies at the national level, and
  - addressing cross-border health care at the European level.

- Interactive knowledge sharing over long periods of time proved quite important in the first and second cases, but not in the third. However, the interactions were collaborative in the first case and highly confrontational and tactically planned in the second.

Lessons learned

- Experience with knowledge brokering in Spain demonstrates that it is necessary to match brokering mechanisms to policy processes. For example, what made a difference in improving the performance of health and social care organizations at the regional level (a formal, participatory interactive knowledge-sharing mechanism) is very different from what made a difference in developing anti-tobacco policies at the national level (an array of informal, reactive knowledge-sharing mechanisms that tried to dominate or marginalize groups pursuing narrow material interests).

- However, as the economic pressures grow for Spanish governments to do less, it will be important for those interested in knowledge brokering to ask whether there is a need for more, or differently sized, knowledge-brokering organizations than currently exist in the country. The time may be right for national and regional discussions about what knowledge-brokering mechanisms and models will best serve Spain in the years ahead.

Knowledge brokering in Spain

This chapter focuses on the role and influence that health systems information can have, and has had, in the health policy-making landscape in Spain. It draws on documentary analysis and interviews with a small number of policy-makers, stakeholders and knowledge brokers to understand the national context for knowledge brokering and the mechanisms and models in use (both in general and in three selected organizations in particular). The chapter also provides three examples of intersections between knowledge-brokering organizations and policy-making processes and identifies lessons learned. Our discussion of knowledge-brokering organizations and their products and activities in this chapter reflects the information available during 2009–2010, when we were collecting data for the study.

National context for knowledge brokering

Spain, a country of approximately 47 million people, has a central government, parliament and public administration along with 17 highly decentralized regions (formally called autonomous communities), each with its own government, parliament and public administration and many with unique political, economic, social, cultural and linguistic identities. Spain is typically governed by a single political party at the national level. At the regional level, coalition governments can occur but tend to be the exception. Castilian Spanish is the common language in Spain, but other languages are also spoken in some Spanish regions, particularly in the Balearic Islands, Basque Country, Catalonia, Galicia and Valencia regions. In recent years, English has become more widely used as a working language. In 2008, the country spent 8.7% of gross domestic product (GDP) on health (Global Health Observatory, 2011). Below, we describe major developments in Spain's health system in the last three decades (García-Armesto et al., 2010).

During the 1980s, the evolution of the health system was strongly influenced by two main developments: (i) political decentralization (i.e. the establishment of regional autonomy), including the devolution of health services organization and management to a first group of regional governments (Andalusia, Basque Country, Catalonia, Galicia and Navarra); and (ii) adoption of the General Health Act in 1986, which established the Spanish national health system (SNS) and transitioned the health system from a limited social security model to a universal, tax-financed model. In the same period, two important changes took place in the area of health systems information in Spain: (i) health-related scientific societies were established and expanded; and (ii) teaching and research institutions devoted to public health and health management (*salud*

publica y administration sanitaria) were developed, operating under the auspices of regional governments or with their support.

In the 1990s, policy-makers and stakeholders in the Spanish health system turned their attention to regulatory enhancements, managerial innovations and cost containment. The change in focus, which was reflected in the *April report* (Committee on Review and Evaluation of the National Health System, 1991), was likely precipitated by the expansion of (and emerging criticisms about) the SNS in the preceding decade and the harsh economic climate of the early 1990s. Two related developments appeared in the health systems information landscape in 1995: (i) creation of a national agency for health technology assessment (HTA) – focused primarily on cost effectiveness – which led to the establishment of similar regional agencies; and (ii) creation of a national agency for pharmaceutical drugs (focused primarily on effectiveness, safety and innovation). Also, in 1993, the SESPAS began preparing a biennial report about key issues facing the Spanish health system.

The 2000s were characterized by the completion of the decentralization process and the establishment of the mechanisms needed to regulate the health system aspects of a federal Spain. Decentralization was achieved in 2002 and 2003 mainly by dismantling the National Institute of Health (*Instituto Nacional de la Salud*, INSALUD), which had been responsible for administering health-care services delivered under the terms of Spain's social security system, and transferring its responsibilities to the regional level and then formalizing the terms of this arrangement in the Cohesion and Quality Act. The Act's key contributions were to reinforce the role of Spain's inter-regional council of the SNS, to create an agency for health-care quality and to create a national information institute. The latter has played a key role in health information management (and, by extension, in knowledge brokering) through its datasets (e.g. SNS-eligible individuals, hospitalizations); information systems (e.g. SNS primary care, SNS waiting list, regional); inventories (e.g. primary health-care centre and hospital catalogues); reports (e.g. *Health Barometer*); statistics (e.g. inpatient health-care facility characteristics, health indicators); and surveys (e.g. Spanish National Health Survey, Spanish component of a European health survey). Drawing on these resources, the national Ministry of Health publishes an annual report on health and health systems, with data presented nationally and for each of the 17 regions. Also, as of 2009, health and social policy have been brought together under a new ministry responsible for health and social services.

Key attributes of the policy-making context in Spain

Table 9.1 presents some of the key attributes of the Spanish policy-making context, with a particular focus on those that influence how knowledge brokering is undertaken in the country, including those listed below.

- Spain is a federal state with frequent turnover of its governments (and typically along with them, the senior ranks of the civil service) and with markedly decentralized authority for making decisions, which provides a constantly changing audience for knowledge-brokering organizations to target, particularly if they are focused at both national and regional levels.

- Health system stakeholders have an informal role in policy-making and are not a target audience on a par with policy-makers for most of the knowledge-brokering organizations included in the BRIDGE study.

- A small to medium number of strong research institutions are engaged in research; however, their mandate for knowledge brokering is often implicit and their resources limited (although the three organizations profiled in this chapter are each in some ways an exception to this pattern).

- Language differences often mean that documents from outside Spain have little direct impact.

Table 9.1 Attributes of the policy-making context in Spain that can influence knowledge brokering

Potential attributes (from the BRIDGE framework, Table 2.3)	Key attributes in Spain
Salient features of policy-making institutions and processes	
• Unitary versus federal state	• Federal state
• Centralized versus distributed authority for making decisions about priority problems, policy/programme options, and implementation strategies	• Decentralized authority
• Single-party versus coalition government	• Mostly single-party governments
• Infrequent versus frequent turnover of the governing party/coalition and its leadership	• Frequent turnover
• Civil service versus political party influence over decision support within government	• Political party influence
• Centralized versus decentralized decision support within government	• Variable (by region)
• High versus low capacity for policy analysis within the civil service	• Variable (by region)
• Low versus high turnover rate within the civil service	• High turnover rate (with elected government)
• Significant versus limited resources to commission supports outside the civil service	• Variable (by region)

Table 9.1 contd

Potential attributes (from the BRIDGE framework, Table 2.3)	Key attributes in Spain
Salient features of stakeholder opportunities and capacities for engagement	
• Formal, significant versus informal, limited role of stakeholders in policy-making	• Informal, limited role (although stakeholders have a formal opportunity to comment on legislation)
• High versus low degree of coordination within stakeholder groups	• Relatively low
• High versus low autonomy of stakeholder groups from government and from narrow interests within their own memberships	• Variable (by region)
• High versus low capacity for policy analysis within stakeholder groups	• Variable (by region)
• Significant versus limited resources to commission supports outside the groups	• Limited resources
Salient features of research institutions, activities and outputs	
• Small versus large number of strong research institutions involved in the production, packaging and sharing of health systems information	• Small to medium number
• Large versus small scale of research institutions	• Small to medium scale
• Explicit versus implicit mandate for and resource commitment to knowledge brokering (not just research) activities and outputs	• Implicit mandates and limited resources for brokering
General features of the national policy-making context	
• English (the language of most health systems information) is versus is not spoken in addition to local languages	• English is not widely spoken
• Small (everyone knows each other) versus large size of the population	• Variable (by region)
• High versus low rates of Internet use	• Medium to high rates of Internet use
• High versus low capacity of local news media for objective reporting	• High capacity of news media

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.

Knowledge brokering mechanisms and models in use

The need for scientific and technical inputs for decision-making in the Spanish health system has increased and evolved over the last 30 years, which has resulted in distinct waves of knowledge-brokering organizations appearing on the scene.

Knowledge-brokering organizations born in the 1980s

As noted above, a number of health-focused scientific societies were created and expanded rapidly in Spain in the 1980s, including the key examples listed below.

- A society of epidemiology was established in 1978 with 45 members. The society emerged out of the training programme in epidemiology at the National School of Public Health in Madrid, which itself had been established in 1924 and had merged with the national school of hospital management in 1986. The epidemiology society currently has about 1000 members.

- A society of family and community medicine (*Sociedad Española de Medicina de Familia y Communitaria*, semFYC) was created in 1982, largely through the mobilization of family and community medicine residents, and regional sections were established between 1984 and 1987. Current membership is around 20 000. Three other associations related to primary health care – a society of rural and general medicine (*Sociedad Española de Médicos de Atención Primaria*, SEMERGEN); a primary health-care network (*Red Española de Atención Primaria*, REAP); and an association of community nursing (*Asociación de Enfermería Comunitaria*, AEC) – were established after this period.

- An association for quality of care was established in 1984 by professionals from a broad range of academic disciplines and health professions. Several years later, in 1989, FAD was created, which formalized a research, training and knowledge-brokering role in the field of health and social care quality.

- An association of health economics was formally launched in 1985. Its membership was 848 in 2009, with about one third of members being health economists; one third physicians; and one third with other backgrounds.

- Finally, SESPAS, commonly called the society of societies, was established in 1985 as an umbrella for the growing number of health-focused associations and societies in the country.

These societies play important knowledge-brokering roles through the actions of their members –who work at many levels within the system and who periodically take on key policy-making positions – and by supporting their members to work collectively.

During the same decade, as also noted, a number of regional public health teaching and research institutions were also established, typically with the support of regional governments: in 1985, the Andalusian School of Public Health (*Escuela Andaluza de Salud Pública*, EASP); in 1988, the Madrid University Centre for Public Health (*Centro Universitario de Salud Pública*, CUSP; closed in 2004); in 1987, the Valencia Institute for Public Health (*Instituto Valenciano de Estudios de Salud Pública*, IVESP); and in 1994, the Catalonia Institute of Public Health (*Institut de Salut Pública de Catalunya*, ISP; closed in 2003).

In addition, the Institute of Health Carlos III – Spain's premier health research institution – was established in 1986 as an autonomous organization funded by the then ministry of health and consumer affairs. Since its creation, the Institute has cooperated closely with a number of research programmes within the SNS and played an important role in funding research in many fields (biomedical, bioengineering, clinical, epidemiology, pharmacology, health technology and health services), supporting the career development of researchers working in these domains and promoting research networks. The National School of Public Health is part of the Institute.

Knowledge-brokering organizations born in the 1990s

In the 1990s, the creation of the National Agency for Health Technology Assessment (Agencia de Evaluación de Tecnologías Sanitarias, AETS) occurred around the same time as the founding of a number of similar regional agencies:

- Basque Office for Health Technology Assessment (*Servicio de Evaluación de Tecnologías Sanitarias*, Osteba) in 1992;

- Agency for Health Technology and Research Assessment of Catalonia (*Agència d'Informació, Avaluació i Qualitat en Salut*, AIAQS) in 1994 (originally under a different name); and

- Health Technology Assessment Agency of Andalusia (*Agencia de Evaluación de Tecnologías Sanitarias de Andalucía*, AETSA) in 1996.

Moreover, the focus on regulatory enhancements, managerial innovations and cost containment also led to the emergence of small but active groups based in universities and foundations, including the following examples.

- Centre for Research in Health and Economics (*Centre de Recerca en Economia i Salut*, CRES), created in 1996 in the Department of Economics and Business, University Pompeu Fabra, Barcelona.

- A health services research institute (*Fundación Instituto de Investigación en Servicios de Salud*, IISS) which was also founded in 1996 and which brought together a network of researchers with support from groups and institutions in Aragón, Catalonia and Valencia; and

- The Gaspar Casal Foundation (*Fundación Gaspar Casal*, FGC), a private sector foundation initially focused on HTA but more recently focused on health administration and health services research.

Knowledge-brokering organizations born in the 2000s

In addition to the creation of a national information institute, the first decade of the 21st century witnessed the emergence of patient-driven organizations

and problem-focused research networks. In late 2004, a Spanish patient forum (*Foro Español de Pacientes*) was established and is now a key contributor to public debates about health systems. In 2006, the Biomedical Research Centre's Network for Epidemiology and Public Health (*Centro de Investigación Biomédica en Red de Epidemiología y Salud Pública*, CIBERESP) was created to bring together researchers, health professionals and policy-makers to address pressing public health problems, much as other networks in Spain brought together key stakeholders in their respective problem areas.

Over the decade, there has also been a clear trend toward the externalization of know-how, as experts have moved from the public service to private consulting firms and to the private sector more generally. This trend may be attributable to many factors, including the decentralization of authority to the regions (and the resulting weakened role for the national ministry of health and social services); a cultural bias against open lobbying (and the resulting demand by pharmaceutical, technology and other industry groups for intermediary organizations that can package and disseminate information that supports their products and services); and the growth in some regions of private financing for hospitals and other institutions (and the resulting roles created for large construction firms, private insurers and banks). This trend has not extended beyond the country's borders, however, perhaps in large part because of the fees charged by private consulting firms, which are prohibitive for most Spanish organizations.

Current state of knowledge brokering

Twelve knowledge-brokering organizations in Spain met our eligibility for inclusion in the BRIDGE study (see Chapter 2). These organizations tended to use fairly traditional information-packaging mechanisms and interactive knowledge-sharing mechanisms (Table 9.2). Some of the more innovative information products target policy-makers explicitly and are written in a language designed to be accessible to them and to stakeholders. Also, some are timed to relate to policy-making processes or to requests from policy-makers. On their websites the 12 organizations did not provide much description of their organizational models or their approaches to monitoring and evaluation.

Spotlight on selected knowledge-brokering organizations

After looking at specific cases where knowledge-brokering organizations have interacted with health policy-makers, we highlight the work of three organizations that are in some respects unique in their engagement in knowledge brokering, although each has quite specific areas of focus and target audiences.

Table 9.2 Knowledge-brokering mechanisms used in Spain

Potential characteristics (from the BRIDGE criteria, Table 2.2)	Common characteristics in Spain
Information-packaging mechanisms used	
• Traditional versus innovative types of information products used	• Most are traditional
• Innovative products draw on systematic reviews (part of criterion 3)	
• Innovative products target policy-makers as a key audience (criterion 5)	• Some target policy-makers
• Innovative products reviewed before publication by target audience (criterion 6)	
• Innovative products highlight decision-relevant information (criterion 7)	
• Innovative products use language designed to be accessible (criterion 8)	• Some written in accessible language
• Innovative products follow a graded-entry format (criterion 9)	
• Innovative products accompanied by online commentaries (criterion 10)	
• Innovative products brought to attention by e-mail (criterion 11)	
Interactive knowledge-sharing mechanisms used	
• Traditional versus innovative types of knowledge-sharing mechanisms used	• Most are traditional
• Innovative mechanisms draw on systematic reviews (part of criterion 4)	
• Innovative mechanisms target policy-makers as a key audience (criterion 5)	• Some target policy-makers
• Innovative mechanisms timed to relate to policy-making or requests (criterion 6)	• Some are timed but most are not
• Innovative mechanisms involve pre-circulated products (criterion 8)	
• Innovative mechanisms involve the creation of new products (criterion 10)	
• Innovative mechanisms involve the announcement of new products (criterion 11)	

FAD

Stemming from the European and Spanish quality-of-care movement of the 1980s, FAD was established as a not-for-profit institution in 1989 and became a university institute in 2000. Its research, training and knowledge-brokering activities are centred around three domains: (i) effectiveness of quality-improvement methods (part of a European Commission framework programme); (ii) quality improvement in long-term care, mental health care and social care; and (iii) patient safety. Thus far, FAD has had its most significant impact in the areas of long-term care and patient safety.

FAD's mission is to be a forum for citizens, clinicians, managers, policy-makers and researchers to work together to improve quality of care in health and social services. It uses a number of interactive knowledge-sharing mechanisms to enable this collaboration. In particular, FAD convenes many meetings with

health and social care professionals to support the implementation of quality-improvement models. The institute also interacts with policy-makers to understand their needs related to quality improvement and to respond to their requests for specific types of support (briefings typically) in promoting quality of care in health and social services. FAD also prepares reports about particular quality issues and efforts that have been undertake to address them.

Spain's decentralized, federal nature influences FAD's work in at least two ways: (i) most work is commissioned by regional managers and policy-makers and requires region-specific reports and briefings; and (ii) much work needs to be repeated every four years within engaged regions because of the high turnover in the civil service after each regional election.

FAD's management board includes the presidents of scientific and management societies in the health and social care field, as well as individuals who have made major contributions to health services research in general and quality-improvement research in particular. An executive council, drawn from the management board, is actively involved on a more regular basis.

SESPAS

SESPAS was established in 1985 as a society of societies, with the aim of harnessing the collective talent and energy of the various health-focused scientific societies in the country. The current roster of societal memberships includes seven with a technical focus and four with a regional (i.e. geographical) focus. Since its creation, SESPAS has emphasized its role as a federation of these societies – with each speaking out individually – rather than as a single voice for them. It originally focused on promoting knowledge development and professional development in public health, and then added an advocacy role, but it is fairly new for the organization to be considered a knowledge broker. SESPAS carries out its knowledge-brokering role largely through the volunteer efforts of its individual members. These members now number about 4000, are drawn from diverse contexts (e.g. regional and national levels, academic and administrative institutions) and collectively bring a tremendous breadth and depth of expertise to discussions of pressing issues.

SESPAS facilitates a number of interactive knowledge-sharing mechanisms with policy-makers and stakeholders (e.g. publication-writing teams, interest-group meetings, working groups and conferences) and promotes its members' involvement in interactive knowledge-sharing mechanisms organized by others (e.g. broad social movements, regional and national committees, official working groups). As a national organization in a highly decentralized country with limited stakeholder engagement in policy-making, SESPAS's proactive role on

policy issues of regional and national interest, and its reactive role in piecemeal national policy-making processes, can stimulate its members to participate more actively in health and social policy-making. While its interactive knowledge-sharing mechanisms are not yet seen as part of a comprehensive and well-targeted strategy for knowledge brokering, there is considerable potential to evolve in that direction. SESPAS's principal information-packaging mechanism is its biennial report – *Informe SESPAS* – about key issues facing the Spanish health system.

SESPAS is a legally incorporated entity, independent of government, and governed by statutes that are modified or ratified by its membership.

OSE

The OSE was established in 2002 within the Andalusian School of Public Health, which (as noted previously) was itself created in 1984. The OSE's mission is to collect, analyse and disseminate information on European Union (EU) policies and programmes, as well as on other decisions relevant to health, in order to identify implications for the Andalusian health system and opportunities to participate in, take advantage of and influence health policy-making in Europe. It is effectively a knowledge-brokering organization on EU health issues in the region of Andalusia – Spain's largest region, comprising eight provinces and a population of about 8 million people. But the OSE's reach extends beyond Andalusia, as its materials are available free of charge to other regions as well as to other countries without the resources or capacity to support a similar effort.

The OSE uses a variety of information-packaging mechanisms, such as strategic reports, and one key interactive knowledge-sharing mechanism – the OSE forum, which targets policy-makers, health service managers, researchers and other stakeholders. The OSE has participated in a number of EU projects, either as coordinator or as a member of the research group. The OSE has a small technical staff and occasionally draws on the members of a network of outside experts, who may be asked to contribute to technical documents published in the OSE's Paper Series and who are sometimes compensated for their contributions. Some of the OSE's work is sponsored by national or regional health research funds, by the European Commission's Directorate General for Health and Consumers (DG Sanco) or, much less commonly, by other private sources.

While Andalusia has experienced a stable political environment and policy continuity over the last couple of decades, there is always a degree of turnover within the regional government and health administrations. Knowledge-brokering organizations such as the OSE, located outside government, can ensure that institutional memory is preserved during such periods of change.

Case studies of intersections with policy-making processes

Three case studies were chosen to illustrate how knowledge-brokering organizations such as FAD, SESPAS and the OSE influence policy-making. The case studies describe:

1. improving the performance of health and social care organizations at the regional level

2. developing anti-tobacco policies at the national level, and

3. addressing cross-border health care at the European level.

These case studies complement each other by providing different perspectives on health policy-making processes and on the way that knowledge-brokering organizations intersect with these processes. The case studies are based on interviews with a small number of individuals working in research and policy-making, and we also draw from our analysis of relevant documentation and media coverage.

Case study 1. Improving the performance of health and service care organizations

In Spain's regions, as in many countries with a purchaser/provider split,[1] public administrations and the private organizations that they fund to deliver care can face challenges in agreeing how to improve performance, particularly in sectors where many professional groups and provider organizations are involved. In an effort that began in the region of Catalonia and later was extended to Navarra and Valencia, FAD developed in partnership with each regional government a voluntary, participatory, consensus-based approach to improving the performance of private health and social care organizations (Hilarion et al., 2009). Organizations involved in care that complemented primary and hospital care were prioritized, namely: assisted living; care for elderly people in convalescent care, nursing home and palliative settings; and care for marginalized groups, including abused women, drug users, and people with mental illness or mental or physical disabilities.

Piloting the approach in Catalonia

Faced with a purchaser/provider split and a complex organizational environment on the private provider side, Catalonia's regional government established an agreement with FAD, on the basis of its track record, to collaboratively develop an approach to performance improvement based on the selection, use and

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1 A separation between the purchasers of care (e.g. special health authorities) and the providers of care (e.g. hospitals).

analysis of performance indicators. The agreed approach incorporated four steps.

1. **Stakeholder engagement.** All organizations providing health or social care in the prioritized domains are formally invited by the public administration to participate in selecting and using performance indicators. The administration pays 80% of the costs of the quality improvement process and (to encourage a sense of ownership) the private organizations pay the remaining 20%.

2. **Indicator selection.** Informed by a literature review, participating organizations select (over the course of five to seven meetings) contextually appropriate indicators using standardized consensus methods. Context is interpreted broadly here and can include legislative, practical and timing considerations.

3. **External evaluation.** Well-trained external evaluators draw on a range of sources and rigorous evaluation methods and work with informed participants to undertake an external evaluation of each organization. The data sources include patient/client records, interviews with health professionals, direct observation and a select set of relevant documents. Before starting this work, the evaluators participate in a training programme and participating organizations are informed of the procedures that will be used.

4. **Reporting and discussion.** Two months after the fieldwork is completed, participating organizations each receive a personalized performance report and are engaged in discussions about ways to improve performance. At the same time, an additional report with anonymized league tables that permit benchmarking in relation to peers is released for public discussion. The reports and discussion have resulted in the achievement of higher levels of performance and more acceptable levels of performance variation.

Drawing lessons as the approach was implemented more broadly

After the successful pilot, FAD continued using the approach in Catalonia and also began using it in two other regions. Over the next eight years, FAD used the approach with 648 health and social care organizations (requiring the analysis of close to 70 000 individual records). FAD and its partners have drawn a number of lessons from this experience.

* The approach requires continuous improvement in order to address the many technical issues that inevitably arise as an initiative is scaled up. It also requires the support of FAD's quality-centred network that now exists across much of the country.

- The scaling up of the initiative can be attributed at least in part to the success of the initial pilot work. Its sustainability over time can be attributed to a convergence of views between FAD and the regional government on key issues, such as stakeholder engagement, which led to the establishment of advisory councils of providers for each performance-improvement project.

- FAD and its partners were required to develop and continually enhance their skills in interactive knowledge-sharing due to the long-term nature of the relationships between FAD and its many partners (in regional governments, private organizations and health professional groups) and the periodic requests for briefings or updates from other stakeholders (e.g. political parties in the regional parliament) and the media. FAD also periodically produced peer-reviewed publications about their work as a way of sharing lessons learned.

- FAD's responsiveness to emerging issues has also enabled it to meet the needs of its partners. Two examples illustrate this point. First, when a regional government raised the issue of whether participation by private organizations should be made mandatory, FAD pointed out that this would change the dynamics and feeling of ownership among participants and that the so-called softer, more complex approach of voluntary participation would helpfully complement the harder, simpler production-based agreements between a public funder and the private organizations it funds. Second, when some private organizations raised the concern that improving performance would increase costs, FAD conducted an analysis of the available data, prepared a report that showed that this had not been the case and disseminated the report among all stakeholders.

Case study 2. Developing anti-tobacco policies

Spain has had consistently higher rates of tobacco use than most other European countries for many years. In 2003, just before the time period of this case study, 28% of the Spanish population older than 16 years of age smoked on a daily basis (Ministry of Health, Social Services and Equality, 2003). Two years earlier, annual mortality due to smoking had peaked at 54 000 deaths (Banegas et al., 2005). Between 2004 and 2010, tobacco use began to decline, and the knowledge-brokering activity during those years is the focus of this case study (Fernández, Villalbí & Córdoba, 2006; Córdoba et al., 2006). Although a number of anti-tobacco legislative and regulatory changes – called Royal Decrees (RDs) – were introduced in the 1990s and early 2000s (RD 510/1992, RD 1185/1994, RD 1293/1999, RD 1079/2002), the main integrated piece of legislation was issued in 2005 (Law 28/2005) with the title of Health measures against smoking and regulating the sale, supply, consumption and advertising

of tobacco products. In 2011, another piece of legislation reinforced these earlier changes (Law 42/2010).

SESPAS, both directly and through its involvement as a founding member of the National Committee for the Prevention of Smoking (*Comité Nacional para la Prevención del Tabaquismo*, CNPT), played key knowledge-brokering roles in moving particular tobacco issues up the national government's agenda and in the resulting policy development processes. SESPAS's direct roles included supporting the work of a national coalition for smoking prevention; identifying and supporting members who could bring their expertise to bear on the issues at hand; and mediating discussions among different groups.

The CNPT, a nongovernmental organization established in 1995 with the aim of defining priorities for smoking prevention and influencing their adoption by policy-makers, also played key knowledge-brokering roles. It had evolved over a decade and a half from a small group of five organizations with limited understanding of knowledge brokering to a dynamic coalition of 40 organizations with significant expertise in knowledge brokering. Its early steps were quite tentative: the CNPT documented existing knowledge on tobacco and health into a white book that included 10 principles (decalogue) for tobacco prevention in Spain; it launched a webpage; and it initiated regular interactions with other similar European organizations. In later years the coalition took bolder steps: the CNPT participated very actively with Austria, Greece, Italy and Portugal in a EU-funded project on tobacco policies; published a book on tobacco prevention policies; organized training seminars for key stakeholders in the tobacco policy-making processes; improved its communication infrastructure and its ability to relate to the media; and expanded its expertise in other areas of tobacco control, such as aspects of fiscal policy, in collaboration with the Ministry of Finance.

Banning smoking in workplaces and enclosed public spaces and prohibiting tobacco advertising

Spain had witnessed the introduction of some anti-tobacco policies in the five years before the time period for the case study. For example, smoking was banned on public transportation; health warnings on tobacco products were introduced, as required by an EU directive; health professionals were educated about smoking cessation supports; and the WHO Framework Convention on Tobacco Control was adopted. But the country had also witnessed some failures, such as the failure to implement a proposed plan for the prevention and control of smoking because of the lack of consensus among regional governments on the specifics of financing tobacco-cessation pharmaceuticals. At the end of 2004, the Spanish government announced its intention to introduce legislation to ban smoking in workplaces. This set in motion a complex policy-making

process culminating a year later with the parliament's adoption of legislation (Law 28/2005) that banned smoking in workplaces and enclosed public spaces (except bars and restaurants) and also, perhaps more dramatically, prohibited tobacco advertising.

The 2005 legislation was a big step. Although smoking had not been allowed in cinemas and other enclosed public spaces for safety and public health reasons since the 1930s, this policy was not being followed. By the 1980s, both national and regional government regulations had banned smoking in health and teaching institutions and in workplaces where pregnant women would be. No prohibitions of tobacco advertising were yet in effect.

When the government announced its intention to act in late 2004, opponents of the proposed legislation immediately launched an organized resistance. Tobacco companies increased their marketing efforts and introduced new, low-cost tobacco brands. Groups funded by the tobacco industry (e.g. *Club de Fumadores por la Tolerancia)* argued for scaling back the legislative proposals. Individuals with and without visible ties to tobacco companies communicated their concerns through the media, trade unions and both consultative and decision-making bodies. For example, they questioned some of the negative effects of smoking on health and argued in favour of smokers' rights.

At critical times during the legislative process the CNPT wrote articles for the print media; produced radio and television messages; called press conferences to clarify particular issues related to the effects of tobacco and tobacco-control policies; mobilized health professionals; and interacted directly with policy-makers in parliament and government. One of the coalition's first articles by tobacco-control experts was published on 6 December 2004, very soon after the government announced its intent to legislate (Córdoba, 2004). By March 2005, more than 50 such articles had been printed in the Spanish media. The resulting legislation reflected the key messages put forward by the CNPT and achieved broad political consensus.

Banning smoking in bars and restaurants

Five years later, in 2010, the Spanish parliament extended the smoking ban to bars and restaurants. The policy-making process in 2010 had a number of similarities to the one in 2005 (e.g. the kinds of issues under consideration and the stakeholders involved), but there were also some important differences: Spain had experienced five years of tobacco-free workplaces and enclosed public spaces; countries such as Italy, Portugal and Turkey had passed more restrictive laws on tobacco than those in Spain; key stakeholders were better prepared than they had been in 2005; Spain was in the midst of an economic crisis, making the threats of decreased business and fewer jobs in the hospitality industry

more salient; and the legislative process was led by the Spanish parliament (specifically the Board of Health, Social Policy and Consumer Affairs of the Senate of Spain) rather than the executive arm of government.

The CNPT, again with the support of SESPAS, played an important role in arguing about the procedural advantage of having the parliament lead the legislative process – that it would shorten the consultation process. The CNPT, which by then had become recognized as a key stakeholder in the policy-making process, again supported this legislative initiative in many ways, drawing on the substantial experience in knowledge brokering that it had gained during the 2005 policy-making process. The lessons the coalition had learned included the following.

- The CNPT needed to embrace a broader range of scientific knowledge and, in particular, to expand its traditional biomedical knowledge base to include political science, social policy and other types of knowledge.

- The coalition had learned how to deal with internal tensions among its members, most of which arose because of differences of opinion about whether to push for slow, opportunistic or incremental (e.g. single issue) policy changes versus rapid, comprehensive or radical policy changes, with the compromise typically being to settle for less in difficult times (while continuing to press for more) and becoming more demanding in better times.

- The coalition had learned how to interact effectively with policy-makers and to keep open communication channels with policy-makers even when important disagreements arose over proposed policies.

By the end of the case-study period, the CNPT had grown into a highly effective knowledge-brokering organization. It had led a broad-based anti-tobacco coalition for 15 years; accommodated the high turnover in the political and administrative actors that it was seeking to influence; countered the opposition from well-resourced groups and organizations pursuing their economic interests; and achieved a steady string of policy changes that helped to achieve its objective of effective tobacco control.

Failing to achieve progress in one other area of anti-tobacco policy

In early 2009, a consensus report on health-care activities that could support smoking cessation in Spain was published (Camarelles et al., 2009). The report had been developed collaboratively over 18 months by technical representatives of national and regional governments and their counterparts from the scientific societies and professional organizations who were members of the CNPT. The report's main objective was to establish best practice for regional health

services. However, its recommendations were never widely taken up, in large part because regional governments could not agree on the specifics of financing smoking-cessation pharmaceuticals. A small number of influential professionals dissented about several key aspects of the recommendations and some pharmaceutical companies and professional groups pushed for a larger role for pharmaceutical products than the regional governments were prepared to support financially. The current situation is that some regions cover a broad range of smoking-cessation products, others employ a more selective approach and still others support only a very limited use of these products. While the coalition and, in particular, SESPAS were active in these debates, achieving consensus among 17 regions in the face of dissenting voices and lobbying by pharmaceutical companies proved too great a challenge to overcome. These two knowledge-brokering organizations achieved a great deal but they still have work to do.

Case study 3. Addressing cross-border health care

As the EU has grown and developed over the past 20 years, many health-care issues have arisen, one being how residents of one EU Member State seek health care in another. The European Commission proposed a directive on cross-border health care in 2008; however, a substantial number of objections to the directive were raised by Member States at the European Council. A revised directive on cross-border health care was passed by the European Council in 2011. This case study examines the role of knowledge brokering in policy-making – a role that turned out to be relatively insignificant – between the proposal of the first directive in 2008 and the passage of a revised directive in 2011.

The debates about the directive took place on two levels. First, EU Member States – each with unique political cultures, levels of economic development and health system arrangements – were concerned about the specifics of how patient mobility across Europe could affect both the financing and organization of health care in their respective health systems. Second, EU Member States were concerned about the general approach being used in policy-making about health and social care. Some preferred a minimalist approach (which in this case might involve simply formalizing the market for non-essential services); other Member States sought a common set of health policy principles and implementation tools. In many ways the revised directive represented a compromise on both of these levels.

Policy-making in the EU differs from policy-making in its Member States in a number of important respects, it: typically takes place over extended time periods;

is commonly characterized by behind-the-scenes negotiation processes among technical staff rather than highly visible battles among elected representatives; can be highly sensitive to changes in European Council presidencies, European Commission interest, EU Member State health policy leadership, and EU policy forum representatives (who often have limited power and visibility at both the EU and national levels); often does not involve, or even attract the attention of, sector-specific stakeholders operating at the national level within EU Member States; rarely attracts significant media attention in EU Member States; and its impacts are often not immediate within EU Member States. Many of these factors make it difficult for knowledge-brokering organizations operating within EU Member States to inform EU policy-making processes.

Seeking, but largely failing, to inform the policy-making process

Three features of this particular case enhanced the prospects for Spanish knowledge-brokering organizations to inform the policy-making process about cross-border health care. First, the OSE prepared, published, disseminated and promoted discussion about a report on the implications of the original 2008 directive (Carrillo Tirado & García-Sánchez 2008). Second, in 2009 the Spanish Ministry of Health funded a special issue of a journal on European health citizenship (Revista de Administración Sanitaria Siglo XXI, 2009). Third, Spain held the European Council presidency during a critical period in the first half of 2010 when this policy-making process reached a critical juncture (as was also the case in 2002 when the European Council called for a high-level process of reflection on patient mobility). The editors of the special issue noted that, while Spanish health system stakeholders and knowledge-brokering organizations tend to pay very little attention to EU policies, the directive on patient mobility created important opportunities for Spain in both the health-care and tourism sectors (Editorial team, 2009).

Of course, Spanish knowledge-brokering organizations were not the only ones who tried, or could have tried, to inform this policy-making process. Three European knowledge-brokering organizations also published reports to inform the process: (i) the European Observatory on Health Systems and Policies (Bertinato et al., 2005; Rosenmöller, McKee & Baeten, 2006; Wismar et al., 2011); (ii) the European Social Observatory (Baeten, Vanhecke & Coucheir, 2010); and (iii) LSE Health (Mossialos et al., 2010). The editors of one of these reports noted that, "We also believe that the transposition and implementation of a directive on cross-border health care in the Member States will benefit from an informed debate in the relevant countries" (Wismar et al., 2011).

Nevertheless, we found little indication that these knowledge-brokering organizations were successful in informing these debates. Moreover, almost

no description or analysis were available, either at the EU level or at Member State level, about EU Member States' views on the subject of cross-border care; the rationale for these views; or how these views were expressed, discussed and negotiated in the policy process. The relatively protected policy-making environment appeared to be at least one key reason for the limited role played by knowledge-brokering organizations.

Lessons learned

Several lessons emerged about matching brokering mechanisms to policy processes from a comparison of the three cases (Table 9.3).

- Information-packaging mechanisms, particularly reports, achieved the least impact in a complex policy context (case study 3).

- A formal, participatory interactive knowledge-sharing mechanism achieved impact in a policy context when there was a win–win logic among key groups with some shared interests (case study 1), whereas an array of informal, reactive knowledge-sharing mechanisms that tried to dominate or marginalize groups pursuing narrow material interests achieved impact when there was a win–lose logic among key groups with divergent interests (case study 2).

- An organizational model that involves a single knowledge-brokering organization establishing long-term functional linkages with policy-makers and stakeholders achieved impact when there was a win–win logic among key groups with some shared interests (case study 1), whereas an organizational model that involves a knowledge-brokering organization supporting a network of like-minded but weakly tied individuals and organizations that can respond in a timely way achieved impact when there was a win–lose logic among key groups with divergent interests (case study 2).

A closer look at each of the three cases reveals some additional lessons about knowledge-brokering mechanisms.

- In policy-making contexts characterized by purchaser/provider splits, interactive knowledge-sharing mechanisms that are voluntary, participatory and consensus-based (as is the one supported by FAD) may helpfully complement the more formal contracting that tends to capture most of the attention of policy-makers and stakeholders (case study 1).

- In policy-making contexts characterized by competition and adversity, interactive knowledge-sharing mechanisms may migrate over time from impartial, technical advisory opportunities to more overt advocacy roles

Table 9.3 Interaction between knowledge-brokering organizations and policy-making processes

Domain	Improving the performance of health and social care organizations at the regional level (case study 1)	Developing anti-tobacco policies at the national level (case study 2)	Addressing cross-border health care at the European level (case study 3)
Policy context	• Single level of government involved (regional/ subnational) • Informal, limited role of stakeholders in policy-making • Explicit mandate for knowledge brokering at FAD • Win-win logic among key groups with some shared interests	• Single level of government involved for most aspects of the issue (national) • Informal but potentially significant role of stakeholders in policy-making • Explicit mandate for knowledge brokering at SESPAS and the CNPT • Win-lose logic among key groups with divergent interests	• Two levels of government involved (EU primarily and national secondarily) • Centralized (often hidden) authority for making decisions • Frequent turnover of leaders • Informal, limited role of national-level stakeholders in EU policy-making • Logic unclear given lack of window onto the negotiation process
Information-packaging mechanisms	• Reports address the many features of the issue • Reports target both policy-makers and stakeholders	• Reports address the topical features of the issue • Reports target policy-makers	• Reports address an issue that has not captured the attention of national policy-makers and stakeholders • Reports target policy-makers
Interactive knowledge-sharing mechanisms	• Formal four-step, voluntary, participatory and consensus-based mechanism (the single most important knowledge-brokering mechanism in use) • Mechanism addresses the many features of the issue, incorporates the views and experiences of stakeholders, and considers health systems information • Mechanism targets policy-makers through stable, long-term relationships	• An array of informal, reactive mechanisms (the most important knowledge-brokering mechanisms in use) • Mechanisms address the topical features of the issue and consider health systems information • Mechanisms target policy-makers and are timed to related to a policy-making process • Mechanisms offer stakeholders perceived to be acting in the public interest the opportunity to contribute to the discussion (but not those pursuing narrow, material interests)	• Mechanisms unclear given lack of window onto the negotiation process
Organizational model	• One knowledge-brokering organization establishes long-term functional linkages with policy-makers and stakeholders	• One knowledge-brokering organization supports a network of individuals and organizations that can respond in a timely way	• Organizational model unclear given lack of window onto the negotiation process
Monitoring and evaluation	• Implicit, based on the growth in demand for services and publication of review papers in peer-reviewed journals	• Implicit, based on wins on key issues in the policy-making process and publication of review papers in peer-reviewed journals	• Approach unclear given lack of window onto the negotiation process

that require a very different set of skills, such as monitoring and reacting rapidly to the behaviours of opponents, as the CNPT was forced to do (case study 2).

- In policy-making processes characterized by complex negotiations among a diverse array of policy-makers and stakeholders, the value of health systems information as one input into these negotiations may be lost altogether (case study 3).

And finally, beyond the specifics of our case studies, three additional observations about knowledge-brokering in Spain warrant mention.

1. Overall, relatively little attention is given to innovative knowledge-brokering mechanisms and models.

2. The way that information is packaged may need to vary depending on the nature and pace of the interactions taking place.

3. Spain's long history of the revolving door can be a powerful knowledge-brokering mechanism in its own right as experienced, knowledgeable people frequently move from academia into professional organizations and governments and from professional organizations and governments into academia, taking their skills and perspectives with them.

Conclusions

Experience with knowledge brokering in Spain demonstrates that it is necessary to match brokering mechanisms to policy processes. For example, what made a difference in improving the performance of health and social care organizations at the regional level (formal, participatory interactive knowledge-sharing mechanism) is very different from what made a difference in developing anti-tobacco policies at the national level (array of informal, reactive knowledge-sharing mechanisms that tried to dominate or marginalize groups pursuing narrow material interests). However, as the economic pressures grow for Spanish governments to do less, it will be important for those interested in knowledge brokering to ask whether there is a need for more, or differently sized, knowledge-brokering organizations than currently exist in the country. Small organizations like FAD and the OSE can do only so much with their limited resources. On the other hand, large scientific societies (and societies of societies such as SESPAS) are limited by the voluntary contributions of their members. The time may be right for national and regional discussions about what knowledge-brokering mechanisms and models will best serve Spain in the years ahead.

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