

# Using knowledge brokering to promote evidence-based policy-making: the need for support structures

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**Abstract** Knowledge brokering is a promising strategy to close the “know–do gap” and foster greater use of research findings and evidence in policy-making. It focuses on organizing the interactive process between the producers and users of knowledge so that they can co-produce feasible and research-informed policy options. We describe a recent successful experience with this novel approach in the Netherlands and discuss the requirements for effective institutionalization of knowledge brokering. We also discuss the potential of this approach to assist health policy development in low-income countries based on the experience of developing the Regional East-African Health (REACH)-Policy Initiative. We believe that intermediary organizations, such as regional networks, dedicated institutional mechanisms and funding agencies, can play key roles in supporting knowledge brokering. We recommend the need to support and learn from the brokerage approach to strengthen the relationship between the research and policy communities and hence move towards a stronger culture of evidence-based policy and policy-relevant research.

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Voir page 611 le résumé en français. En la página 612 figura un resumen en español.

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## Introduction

Health research and policy-making operate under different settings, each with its own professional culture, resources, imperatives and time frames. For example, policy-makers rarely convey clear messages about the policy challenges they face in their specific context to allow for timely and appropriate research agendas. Researchers on the other hand often produce scientific evidence which is not always tailor-made for application in different contexts and is usually characterized by complexity and grades of uncertainty.<sup>1</sup> Thus, initiatives are needed to facilitate interaction between researchers and policy-makers to foster greater use of research findings and evidence in policy-making and to narrow the “know–do gap” (Fig. 1).

In 1997, the Canadian Health Services Research Foundation recognized the lack of familiarity between the world of research and that of policy-makers as a major barrier for linking research to policy-making.<sup>2</sup> Jonathan Lomas and the Foundation pioneered knowledge brokering as an approach to foster evidence-informed decision-making.<sup>3,4</sup>

Knowledge brokering differs from other strategies, such as “researcher–

push” or “policy-maker–pull”, designed to close the know–do gap. It starts with the recognition that creating knowledge and formulating policy are two different processes. The focus of knowledge brokering is not on transferring of the results of research, but on organizing the interactive process between the producers (researchers) and users (policy-makers) of knowledge (Box 1) so that they can co-produce feasible and research-informed policy options. Knowledge brokering is a two-way process that aims to (1) encourage policy-makers to be more responsive to research findings, and (2) stimulate researchers to conduct policy-relevant research and translate their findings to be meaningful to policy-makers.

Although a few successful case studies using knowledge brokering have been reported,<sup>5,6</sup> important questions remain unanswered.

- How can the tension between scientific rigour and timely relevance to policy-making be handled?
- The use of evidence from research in policy-making often implies the need to interpret the specific significance of the research findings for the policy decision in question. Who should be involved in each part of this translation?

- Who should organize the knowledge brokering process and how can it be institutionalized?

We describe two experiences with the knowledge brokering approach and provide an outlook for next steps.

## Informing policy on subfertility care in the Netherlands

The Netherlands' Minister of Health in October 2003 decided to no longer reimburse the first cycle of in-vitro fertilization (IVF) and all medications for fertility treatments, except those for the second and third IVF cycles. The decision was not based on cost-effectiveness evidence. Because the results from cost-effectiveness studies were about to become available, the Netherlands Organisation for Health Research and Development (ZonMw) suggested that clinical researchers conducting six inter-related studies on the cost-effectiveness of subfertility might like to collaborate on how to present their results to facilitate the process of translating evidence and putting it in terms relevant to policy-makers.

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A steering committee was established to get inputs and provide quality control. A representative of the Ministry of Health and someone from the Dutch Health Insurance Board sat on this committee, alongside established gynaecologists working in subfertility care, researchers, and an expert on cost-analysis. This act of bringing together various stakeholders to achieve well informed decision-making on (cost-) effective approaches in assisted reproduction enabled them to better understand each other's professional culture.

To support decision-making that was both evidence-based and context-informed and to achieve a process that was acceptable to all the stakeholders involved, the trajectory was divided into three steps.

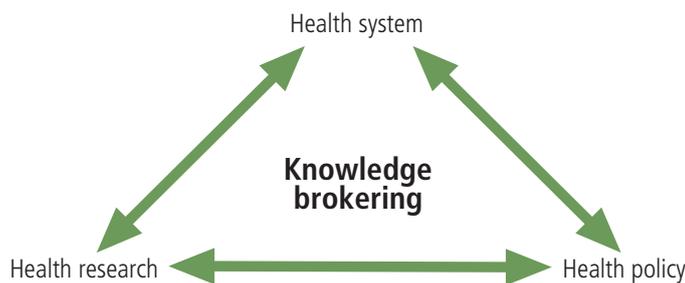
### Step 1

ZonMw commissioned a synthesis that was handled by the (clinical) researchers and resulted in agreement about the main messages from the research. The researchers integrated the evidence from the six studies, weighted the evidence with respect to international literature by means of a systematic review, and added a description from current clinical practice of assisted fertility care in the Netherlands.

### Step 2

ZonMw analysed the policy context and in an interactive process mapped out what the main messages would mean for the different actors in their specific contexts. ZonMw conducted desk research to depict the policy context and carried out semi-structured interviews with the stakeholders — gynaecologists and their professional board, people with subfertility problems and their organization, the Ministry of Health, health insurers and the Health Insurance Board.

Fig. 1. Knowledge brokering proactively ensures the interactions between research, policy and health systems



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### Step 3

Results from steps 1 and 2 were packaged in the form of scenarios to make the research findings more accessible to all stakeholders. These scenarios, containing realistic and feasible policy options for improving the cost-effectiveness of subfertility care, were discussed with a group of invited principal players in the field. ZonMw, as an intermediary organization, created a collaborative environment and acted as a suitable meeting point for both researchers and policy-makers. Due to the scenario format, the participants were able to agree unanimously upon the recommendations for action. The final report, including the recommendations, was sent to the Minister of Health, the Health Insurance Board, the Dutch Society of Obstetrics and Gynaecology, the organization of people with subfertility problems, and the organization of health insurers.

The Minister of Health sent the report to the Dutch Parliament, accompanied by a letter with his reactions. The Minister of Health followed up one recommendation instantly — that the definition of “in-vitro fertilization (IVF)-treatment” in the Health Insurance Act be modified to include the replacement

of cryopreserved embryos to encourage this potentially cost-effective innovation. The Minister of Health, however, decided not to proceed with the recommendation to make single-embryo transfer attractive through the reimbursement policy even though research has shown that such transfer has lesser risks and in the long term leads to lower costs. The Minister stated that: “... it is impossible to develop an arrangement that safeguards the pregnancy chance of all potential parents but demands that, whenever possible single-embryo transfer is performed”.<sup>7</sup> However, as a consequence of the process of knowledge brokering, all parties supported this recommendation and questions were raised in Parliament about the reaction of the Minister of Health to the report. A majority in the Parliament supported a motion “... confirming that IVF-treatment according to the ZonMw-recommendations would favour the health of mother and child ... asks the government to include the first IVF cycle in the health basket ...”.<sup>8</sup> The Minister of Health, however, rejected this motion but said that he was willing to reconsider his decision when the next series of decisions on the health basket are taken.

In summary, this trajectory in the Netherlands was effective in supporting evidence-based decision-making. We believe that the following were key factors for success: structuring of the process in different steps with the researchers in the lead to extract the main messages from the research results; and the institutional broker, ZonMw, for translating the messages within the framework of the policy context. ZonMw was a suitable organization because of its strong commitment to the quality of the process, had no direct interest in the outcomes, was acceptable to all stakeholders, and had

#### Box 1. Characteristics of knowledge brokering

- Organizing and managing joint forums for policy-makers and researchers
- Building relationships of trust
- Setting agendas and common goals
- Signalling mutual opportunities
- Clarifying information needs
- Commissioning syntheses of research of high policy relevance
- Packaging research syntheses and facilitating access to evidence
- Strengthening capacity for knowledge translation
- Communicating and sharing advice
- Monitoring impact on the know-do gap

access to both the research community and policy-makers.

While this fortuitous scenario fitted perfectly with the particular policy question and research evidence set, some questions remain. Would the next important health policy question be addressed by an appropriate brokerage? What are the institutional requirements for knowledge brokering to close the know–do gap nationally, regionally and globally? A possible solution includes more permanent identifiable mechanisms such as the Health Evidence Network<sup>9</sup> or other regional networks such as the national evidence partnerships and evidence-informed policy networks (EVIPNet)<sup>10</sup> being proposed by WHO (discussed elsewhere in this issue).

An appropriate support structure for this process would be a professional institutional brokerage at arms-length from the policy-makers and the research community, but with high credibility and the mandate to carry out the interactive push–pull strategy. Below we describe the experiences of the East African Community, which is embarking on such an institutional experiment in 2006.

## The Regional East-African Community Health Policy Initiative

Alarmed by the huge burden of disease in the region that is avertable by existing knowledge and interventions, and challenged by the Millennium Development Goals,<sup>11</sup> Kenya, Uganda and the United Republic of Tanzania began discussions in 2002 on how to improve the culture for evidence-informed health policy and close the know–do gap. Although there are a few good examples where evidence from research and development efforts seamlessly assisted policy-makers, for the most part it is patchy and unsatisfactory. There are many examples where policy was made in the absence of evidence and where evidence had accumulated but remained unknown to the policy-makers. Supported by a research funding partner (International Development Research Centre, Canada) these three African Ministries of Health embarked on an exploratory process to assess the modalities and institutional mechanisms to bridge the real and harmful gap between research and policy.<sup>12</sup>

### Box 2. The Regional East-African Community Health (REACH)-Policy Initiative

**Goal:** To improve people's health and health equity in East Africa through more effective use and application of knowledge to strengthen health policy and practice.

**Mission:** To access, synthesize, package and communicate evidence required for policy and practice and for influencing policy-relevant research agendas for improved population health and health equity.

#### Step 1

The ministries commissioned a review of the mechanisms, in the region and internationally, which showed that most research-to-policy approaches were owned and driven by the research community and usually dominated by academic think tanks and health policy research departments at universities or national institutes. They also commissioned a few case studies on how key health policies were made (or not made) in this environment. The case studies examined the process, paying special attention to mapping the interactive moments of interplay between researchers and policy-makers over time and were divided into three main categories: most common *researcher–push* strategy; less common *policy-maker–pull* strategy; and least common *interactive push–pull* strategy.

The researcher–push strategy case studies included changing the first-line antimalarial drug policy due to increasing drug resistance, introducing policies for national-scale malaria prevention using insecticide-treated mosquito nets and introducing national policies for community-based health care. The policy-maker–pull strategy examined the introduction of nevirapine for prevention of mother-to-child transmission of human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS). The interactive push–pull strategy examined evidence-based district health planning in the context of health reforms. One case study on community health insurance was included where policy was set in the absence of any research agenda. One striking finding of each of these case studies was that even when research influenced policy well, there was a remarkable lack of follow-up research agenda and researcher involvement in the post-policy period to monitor its performance.

#### Step 2

In a series of national and later regional workshops held in East Africa, which brought together all stakeholders, it

was realized that urgent health policy needs were not adequately reflected in the prevailing research priorities, thereby resulting in the policy being driven by political opinions, crises, paradigms, ideologies and funders. Researchers and policy-makers needed a new and more effective way of helping each other do a better job. The main conclusion was dissatisfaction with the isolated researcher–push and policy-maker–pull strategies. The participants therefore decided to explore whether a variant of the interactive push–pull strategy, that of a dedicated institutional brokerage, was considered so that policy-makers could more efficiently influence research agendas and researchers could more efficiently influence policy. This led to the design of a brokerage mechanism called the Regional East African Community Health (REACH)-Policy Initiative.

The REACH-Policy Initiative is a new, professional, dedicated and semi-autonomous brokerage to mediate between policy-makers and the research community in an iterative fashion (Box 2). It would address all the steps in Box 1 through a brokerage mechanism that identifies key policy questions in need of a better evidence base by asking:

- does the question address a high-level policy question for the country/region?
- does the question address the design of the health system to obtain a targeted health outcome?
- is the health outcome a Millennium Development Goal?

The mandate of the REACH-Policy Initiative is to obtain research findings from the region and beyond, synthesize the information in a timely fashion, package the synthesized information in sufficient time for influencing health policy and practice, communicate and advocate effective policy briefs, monitor the impact on policy change and trends of key indicators, formulate research priorities based on policy concerns and strengthen national and regional capacity for knowledge translation.

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The brokerage is housed within the East African Community Health Research Council in Arusha, United Republic of Tanzania and supports a node in each country. The selected “executive in charge” should have high credibility among both policy-makers and the research community. The initiative is intended to have resources for contracting out the necessary evidence syntheses, but with in-house skills for convening stakeholders and packaging evidence for communicating with various audiences.

An interim regional tripartite executive committee of nine representatives — three from each of the three countries representing their Ministries of Health, National Research Institutions and academic institutions — assists in the initiative’s governance. A tenth, non-voting secretary to the interim committee, is the Health Coordinator of the East African Community. Major donors may participate in this committee as co-opted members. The REACH-Policy Initiative is under development and is an original experiment in applying a semi-autonomous, dedicated, professional, evidence brokerage institution in developing countries.

## Conclusions

Knowledge brokering as an approach to close the know–do gap is still in its incipient stage and it is important to start documenting the experiences. In both the cases we described, the reason to engage in knowledge brokering was the recognition that evidence from research is available and could contribute to rational policy decision-making; and vice versa, that clarifying the information needs of policy-makers could help direct research.

Our case study from the Netherlands shows the power of the brokerage approach in accelerating a mutually satisfactory experience in connecting policy-makers to the needed evidence. Two interrelated core elements to its success were: a carefully designed process to bring the scientific research community and policy-makers together; and an appropriate institutional embedding. We conclude that structuring the process in different steps helped in handling the potential tension between scientific rigour and relevance to policy-making. The institutional embedding of the brokering process was provided for by an intermediary organization. However, sometimes such an intermediary may not be available for each issue.

This lack of brokers is even more acute in developing countries, where the relatively inefficient researcher–push approach is common. One of the main complaints of policy-makers in developing countries is the queue of advocates for various results and experiences, sometimes conflicting or confusing, seeking the attention of the policy-maker. Therefore, the REACH-Policy Initiative is an interesting and attractive idea that establishes a permanent brokerage available to influence policy for any key research, and for influencing the research agenda in turn. It would provide a single, or at least predominant, conduit of evidence to policy-makers and is thus more likely to command their attention than the current fragmented approach. It should also serve to strengthen the relationship between the research and policy communities and hence a move towards a stronger culture of evidence-based policy and policy-relevant research.

We believe that regional networks may be an appropriate way to

institutionalize knowledge brokering and recommend the need to support and learn from the brokerage approach over the next few years to overcome the long-standing barriers to amalgamate research and policy and promote more policy-relevant research. ■

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## Résumé

### Promotion de l’élaboration des politiques sur la base d’éléments factuels grâce à la transmission du savoir : nécessité de structures de soutien

La transmission du savoir semble une stratégie prometteuse pour combler le fossé entre savoir et faire et favoriser une utilisation plus large des résultats et des données de la recherche dans l’élaboration des politiques. Cette démarche est axée sur l’organisation d’un processus interactif entre les générateurs et les utilisateurs de connaissances, de manière à ce que ceux-ci puissent formuler conjointement des options politiques faisables et fondées sur les données de recherche. L’article présente une application récente et réussie de cette nouvelle approche aux Pays-Bas et analyse les besoins pour une institutionnalisation efficace de la transmission du savoir. Il examine également les possibilités pour que cette approche contribue au développement

d’une politique sanitaire dans les pays à faible revenu à partir de l’expérience acquise dans la mise au point de l’Initiative REACH (Regional East-African Health). Nous pensons que les organisations intermédiaires, tels que les réseaux régionaux, les mécanismes institutionnels spéciaux et les organismes de financement, peuvent jouer des rôles essentiels dans la transmission du savoir. Nous recommandons d’utiliser les bases et les enseignements apportés par la mise en œuvre de la transmission du savoir pour renforcer les liens entre les chercheurs et la communauté politique et progresser ainsi vers une pratique plus systématique des politiques reposant sur des éléments factuels et des recherches répondant à des nécessités politiques.

## Resumen

### Técnicas de mediación de conocimientos para promover la formulación de políticas basadas en la evidencia: necesidad de estructuras de apoyo

La mediación de conocimientos constituye una estrategia prometedora para cerrar la brecha «teórico-práctica» y promover un mayor uso de los resultados de investigación y la evidencia en la formulación de políticas. Se centra en organizar el proceso interactivo entre los productores y los usuarios de los conocimientos para que puedan coproducir opciones de política fundamentadas en las investigaciones. Describimos una experiencia reciente en la que este nuevo enfoque se ha revelado eficaz en los Países Bajos y analizamos los requisitos para una institucionalización efectiva de la mediación de conocimientos. Examinamos asimismo el potencial de esta perspectiva para facilitar el desarrollo de políticas sanitarias en los países de bajos ingresos a partir de

la experiencia adquirida en la configuración de la Iniciativa para una Política Sanitaria Regional en África Oriental (REACH). Creemos que las organizaciones intermediarias, como redes regionales, mecanismos institucionales especiales y organismos de financiación, pueden contribuir de forma relevante a apoyar la mediación de conocimientos. Recomendamos que se reconozca la necesidad de apoyar los mecanismos de mediación y aprender de ellos a fin de fortalecer las relaciones entre las comunidades investigadora y normativa y, así, propiciar una cultura más sólida de políticas basadas en la evidencia e investigaciones pertinentes para las políticas.

## ملخص

### الاستفادة من الوساطة المعرفية لتعزيز السياسات المسندة بالبيانات: الحاجة إلى دعم البنى

الصحية في البلدان المنخفضة الدخل، اعتماداً على خبرات مستمدة من إعداد مبادرة السياسات الصحية الإقليمية لشرق أفريقيا. ونعتقد أن التنظيمات الوسيطة مثل الشبكات الإقليمية والآليات المعتمدة لدى المؤسسات ووكالات التمويل يمكنها أن تؤدي دوراً رئيسياً في الوساطة المعرفية. ونوصي بتلبية الحاجة للدعم وللتعلم من أسلوب الوساطة لتعزيز العلاقات بين مجتمعات البحوث ومجتمعات السياسات، ومن ثمّ التحرك نحو بيئة من السياسات المسندة بالبيانات والبحوث الملائمة للسياسات.

تُعَدُّ الوساطة المعرفية من الاستراتيجيات التي يرجى نفعها العميم، في رَأب الفجوة بين المعارف والتطبيق، وللحصول على استفادة أكبر من الموجودات التي تسفر عنها البحوث، وفي السياسات المسندة بالبيانات، وتركز الوساطة المعرفية على تنظيم عملية تفاعلية بين من يُنتج المعارف وبين من يستخدمها، بحيث يمكنهما الإنتاج المشترك لاختيارات سياسية مرتكزة على البحوث. وقد وصفنا في هذا المقال تجربة ناجحة لهذا الأسلوب الجديد في هولندا، وشرحنا متطلبات إضفاء الطابع المؤسسي على الوساطة المعرفية، كما ناقشنا ما يرجى من هذا الأسلوب في تقديم المعونة في إعداد السياسات

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