# Bridging the gap between economists and decision-makers in the health sector:

# Learning from others' experience

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## Summary

The purpose of this study is to draw a number of recommendations regarding the setting up, under the auspices of Paris School of Economics, of a new research entity in health economics, based in Paris and endowed by the federation of Paris hospitals (*Assistance Publique - Hôpitaux de Paris - AP-HP*).

The starting point for the study is the perceived growing gap between academic research in health economics and decision-making, particularly so in the hospital sector and in France. Upfront, two competing explanatory hypotheses can be offered to solve this paradox: either economic results are not under decision-makers' radars because economists' tools are perceived as not suited to the analysis of health care systems or decision-makers lack both time and understanding of what economics has to offer.

Identifying the obstacles encountered in the use of economics for decision-making is therefore the starting point of this study, which has been mandated by the new Director General of AP-HP, Martin Hirsch. The health economics research entity he is planning to endow has been given a dual goal of developing academic research that is policy-oriented and contributing to more economically sound decision-making processes at AP-HP and more widely in the health care sector. Whether this can be achieved, and more importantly how best to achieve this dual goal is therefore the main focus of the study. An opinion survey was sent out to 70 senior researchers in health economics in 19 different countries and interviews were subsequently carried out. Recommendations have been drawn from this material and have been taken into account in the setting up of the new research entity, regarding its' focus, governance and organization. Beyond, this rich feedback on experience at interacting with decision-makers calls for a larger exercise, questioning the interface between health economists and decision-makers, and tentative thoughts are offered for further research in this direction.

# Outline

## INTRODUCTION

Although economics is defined as the 'science of choice', it is, surprisingly, not systematically called upon when decisions are made. This paradox has been analysed by many economists, in an attempt to identify the true added value of economics to decisions. This finding clearly varies according to the field of application and the country.

The background for this study is the perceived growing gap between academic research in health economics and decision-making, particularly so in the hospital sector and in France. This has been phrased by one of the respondents, Laura Pellisé, as follows: '*While economists' contribution in shaping health care policy is low today across Europe, other disciplines have managed to "take over" this role (Operations Research, political science, public health, etc.). The responsibility mainly lies with economists as economic models can sometimes be far from reality. It is therefore important for economists to take into account the context in which decisions are made*'.

Upfront, two competing explanatory hypotheses can be offered to solve this paradox: either economic results are not under decision-makers' radars because economists' tools are perceived as not suited to the analysis of health care systems or decision-makers lack both time and understanding of what economics has to offer.

Identifying the obstacles encountered in the use of economics for decision-making is the natural starting point of this study, which has been mandated by the new Director General of AP-HP, Martin Hirsch. The health economics entity that AP-HP is planning to endow at Paris School of Economics has been assigned a dual goal of developing academic research that is policy-oriented and contributing to more economically sound decision-making processes at AP-HP and more widely in the health care sector. Whether this can be achieved, and more importantly how best to achieve this dual goal is therefore the main focus of the study.

An opinion survey was sent out to 70 senior researchers in health economics (of which 46 came back from 17 different countries) and 26 telephone interviews were subsequently carried out (including 4 of researchers that could not answer to the survey). Recommendations have been drawn from this material and taken into account for the setting up of a new entity, regarding its' focus, governance and organization. Beyond, this rich feedback on experience at interacting with decision-makers has led for a larger exercise, analysing the interface between health economists and decision-makers, and tentative thoughts are offered for further research in this direction.

The report is organised as follows: section 1 defines the background and methods; Section 2 looks into the relationship between economists and decision-makers in health care; Section 3 addresses the interaction between health economists and other researchers, whether theoretical economists or representatives of other disciplines (medical sciences, public health, health services research, other social sciences). Section 4 presents recommendations for the new entity.

# 1 – Background and methods

## 1.1 – Aim of the study

The main objective of the study is to assess the difficulty in achieving the dual goal set for the new research entity. To do so, it is important to understand the nature of the relationship between health economists and decision-makers and with other disciplines. The study also aims at drawing from other researchers' experience in pursuing this dual goal, in order to shape the focus, funding, governance and organisation of the future entity.

## 1.2 – Survey and sample

A survey has been defined and piloted to answer a number of questions perceived as central to the project. Respondents were given as little background information as possible to avoid influencing responses (see introduction of survey and questions in appendix 1).

The selection of respondents was made on a number of criteria, the most important being their present or past affiliation or leadership position in health economics research institutes having an impact on policy (see appendix 2 for the list of respondents and their affiliations).

No decision-maker was interviewed as the focus was on the ability of the research centres included in the sample to achieve the dual goal. Equally, the discipline on which the study focused is economics, with its' application to health and health care. Researchers doing mainly Health Technology Assessment, or specialists in public health or health services research were not interviewed, with one or two exceptions. All researchers had a good knowledge of the field of application, although some came from general economics and had a more theoretical background. Neither were consultants included in the sample, with one or two exceptions. Finally, most respondents were senior in their positions, with some direct experience with both policy-making and research leadership. Some were in large institutions, whether medical schools or economics departments, while others were in much smaller settings. The range of countries covered was as extensive as possible, although restricted to developed countries, and the large representation of some of them in the sample (most notably, the UK and the US) is a reflection of the number of health economists in these countries.

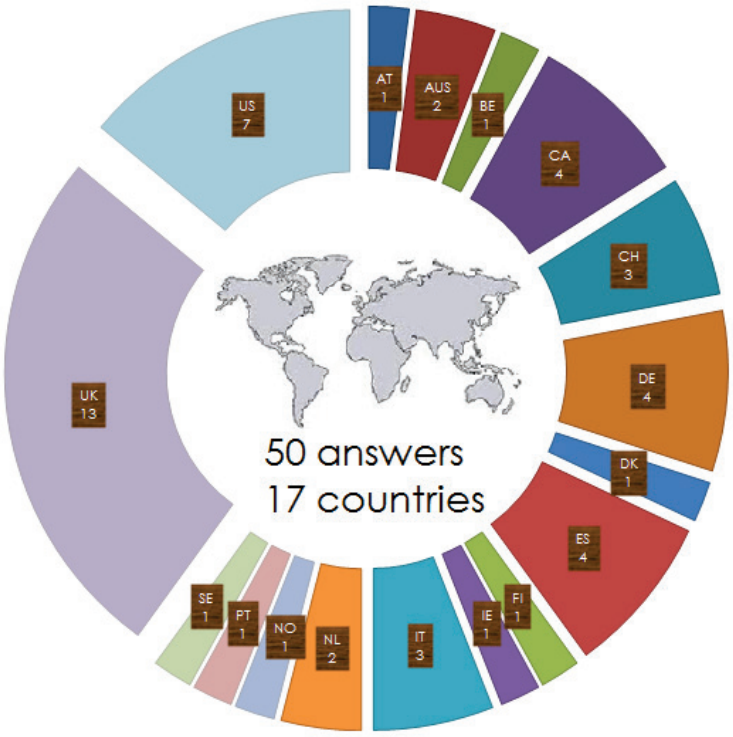
### 1.3 – Interviews, data and methods

Respondents were given the possibility to participate in a 90 minutes interview at the end of the opinion survey. Of the 70 key health economists selected from the international community (excluding France), 46 sent back survey answers. In addition, semi-structured follow-up interviews (videoconference, phone call or meeting) were carried out. Clarification questions on the survey responses were initially asked, followed by questions on the more controversial issues (use of financial incentives, importance of Health Technology Assessment (HTA)[3] production, workload allocation within the entity). Each interviewed participant was sent back a summary of his responses for validation.

[3] *See inahta's definition of HTA on http://www.inahta.org/*

Most questions being open-ended and non-quantitative, a systematic treatment would have required using specific methods to count frequencies and occurrences. A first analysis has been made, with the use of quotes to ensure loyalty to respondents. Validation was also requested from respondents.

In total, material was collected from 50 different respondents, including 46 who answered the survey and 26 who participated in a meeting, phone call or videoconference interview (26 including 4 that could not answer to the survey). Of the initial 19 countries, 17 are represented in the sample.




## 2 – Interface with decision-makers

The challenge raised by the dual goal has been phrased by Randall P (Randy) Ellis as: '*balancing between rigorous theory, methods, statistics, validation and practical applicability on the one hand, and policy relevance, which tends to require simplicity, explainability and broad acceptability*'.

The first part of the study aims at giving a global quantitative assessment of how difficult it is to achieve this dual goal (2.1) and at getting respondents to identify both obstacles (2.2) and success factors (2.3).

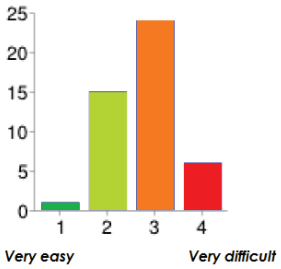
## 2.1 – The general message

In some of the interviews, respondents expressed agreement regarding the relevance of the dual goal but also recognised that it is difficult to achieve. For Tom McGuire, *'there are very few places around the world trying to achieve your dual objective, and the difficulty will be to satisfy two masters (academic/ policy)'*. And for Peter Smith, *'your dual goal is correct and important, but hard to achieve. One has to move from vision to action'*.

In the survey, a scale was defined from 1 to 4 to trace respondents' perception of the difficulty in achieving this dual goal. The survey also included a question designed to identify the respondent's experience at interacting with decision-makers.

Among those who completed the survey (46), the overall achievability of the dual goal was estimated, ranging from 1 (very easy) to 4 (very difficult). The distribution of results clearly shows that most consider this dual goal as difficult.

**1. How difficult do you think this dual goal of encouraging high quality policy-oriented research while contributing towards increasingly evidence-based decisions is to achieve?**




| | | |
|---|---|---|
| 1 | **1** | 2% |
| 2 | **15** | 33% |
| 3 | **24** | 52% |
| 4 | **6** | 13% |

## 2.2 – Understanding the gap: two competing hypotheses … and more

### 1 The initial hypotheses

Two competing hypotheses can be offered upfront to explain why economic results are not under decision-makers' radar, particularly in health care:

**Hyp1**: The tools used by academic researchers in health economics are perceived as not suited to the analysis of health care systems.

**Hyp2**: Decision-makers lack time and understanding of what economics has to offer.

Strong support was given to the issue of time identified in Hyp2. In fact nearly all respondents explicitly underlined the discrepancy between researchers and decision-makers timelines as being the most important obstacle in achieving the dual goal. For Carl Hampus Lyttkens, '*the main difficulty, however, remains the different deadlines. While academics are taught to find the best answers (first best solutions), decision-makers need the best achievable solution, given the constraints they face*'. For Michel Grignon, '*times-lines differ: evidence is needed in a short time, publishable research takes longer, sometimes, ironically, due to delays in getting hold of data owned or produced by decision-makers*'.

Unsurprisingly, little support was found for Hyp1 in the survey, since the sample was restricted to economists who would not readily recognise that their tools are not perceived as suited to the health care field.

This being said, many respondents showed awareness of the lack of effort or competence by economists to communicate with decision-makers, which would partly provide support for Hyp1. For Andrew Street, for example, '*Researchers are not renowned for distilling complex research findings into straightforward and simple messages*'.

Testing Hyp1 further would require asking the same questions to decision-makers, which can be done in future research, if considered important. However, a small number of respondents have occupied senior positions

in health care policy and were able to describe the way in which decision makers perceive 'academics' in general. According to them, academics appear more prone to identify all the weaknesses of the policy under scrutiny than to make practical proposals to move forward. Yet according to Julian Legrand, '*what is needed from researchers is to be constructive, not contrarian*'. They do not appreciate the pressures under which policy-makers are placed and their responsibilities. According to Martin Gaynor, '*Policy makers have other pressures and goals. Compared to researchers, decision-makers have an acute sense of responsibility, as their decisions make a difference to people's lives*'.

In support of Hyp2, and beyond the issue of short timelines, respondents often pointed out that decision-makers and health care professionals often associate economics with accounting. For Laura Pellisé, '*at micro-level, economists are often seen as accountants or finance consultants, and called upon only to measure the costs of an innovation, and not the costs and benefits*'.

This lack of understanding by decision-makers can lead to a rejection and is often a source of tension in the relationship. The same applies with health care professionals who, according to Laura Sampietro, fear that economics will be '*producing results against their own interest*'. It is sometimes even conducive to decision-makers expecting ex-post rationalisation of preconceived ideas or solutions. As Mark Sculpher puts it, '*policy/decision makers have a preconception of what the research should/will say*'. And for Unto Häkkinen, '*if the evidence is against decision-makers own presumptions, it is very hard to get them change ideas*'.

This fosters misunderstanding with economists who then feel they are being instrumented. For Joseph Newhouse, one of the obstacles in achieving the dual goal may be that '*decision-makers have goals for which research is not relevant, e.g., keeping a hospital from closing for political reasons*'.

While the two initial hypotheses capture some of the important aspects in the faulty interface between economists and decision-makers in health care, they do not tell the whole story. Additional explanations have been offered which are highly relevant.

## 2 Additional explanations

Lack of adequate data has often been put forward as an obstacle to having economic results under the decision-makers radar. Indeed, for Joseph Newhouse, *'obtaining compelling results (is difficult). The answers from the data may be murky'*. For Martin Gaynor, *'it's not always possible to generate good evidence and research evidence doesn't usually provide exact evidence on the issue at hand'*. And according to Erik Schokkaert, *'what is most frustrating is when the research has been carried out on a policy-relevant topic, providing good answers with the best available data, but it is not accepted for publication because the data is not considered good enough'*.

Respondents systematically put forward the lack of incentives for more policy-oriented research as another important obstacle. To them, there is a high opportunity cost of time associated with the production of policy-oriented results, possibly higher in health care than in other areas of research. Yet according to Joan Rovira, *'Academic incentives do not reward policy relevance'*. In fact, as noted by Patricia Danzon, *'academics often need publications in top tier journals for promotion/professional success, but these journals may not be interested in health policy or evidence-based research'*.

### 2.3 – The key success factors

Interestingly, only once was the economic crisis brought to the fore as one potential success factor for achieving the dual goal. This is not surprising from economists who resent the general opinion according to which economics is only relevant in hard times. To economists, scarcity is intrinsic and choices always have to be made. But if pushed, most would agree with Stefano Capri, according to whom *'the current economic crisis might convince the scientific community and the decision makers about the urgency to perform (and to utilise) economic studies'*.

Many success factors were listed by respondents, which can be organised in what follows in decreasing order of importance (in terms of how many times they were listed in the sample).

### 1 Relevant questions

Respondents almost systematically pointed to the need to identify those questions for which economists have a comparative advantage. For Jim Butler, what matters is to '*ask the right questions, i.e. questions that address the key issues that will make a difference to the decision finally taken, and that can be answered within the available time frame*'.

### 2 Good data

Good questions but also good data, as stressed by Joseph Newhouse: '*Picking the right questions, meaning questions that matter and for which compelling data can be mastered*'.

### 3 The right people

Choosing the right people was often put forward as a success factor. For Jim Butler, what matters is to '*recruit the right staff (i.e. competent individuals with good listening skills who take the decision-makers' issues seriously)*'. For Sigfried Walch, *'it's very hard to incentivize researchers, as they are very focused on publications to enhance personal visibility and career advancement. It is therefore important to be very careful when recruiting staff to choose those who have a taste for both policy impact and academic publications*'.

### 4 Early engagement

Many respondents see getting both researchers and policy-makers involved, as early as possible, as a key success factor.

John Appleby says: '*get to know your policy customers! What do they want? When do they want it? What level of evidence are they happy with? Challenge policy customers regarding what they think they want/need*'. Terkel Christiansen, for his part, stresses the need for early identification of the following elements: '*Involve decision-makers or stake holders at an early stage, e.g. create a support group to interact with decision makers. You must make goals, mutual expectations, time frame and mode of implementation clear*'.

Not only must there be mutual engagement at an early stage, but also long term relationships. For Tom McGuire, what is needed is *'long-term connection with policymakers so both sides are willing to "invest" in the relationship'*. Maria Goddard also stresses the need to develop *'long term relationships with policy staff and funders'*.

### 5 Stable funding

Stable funding is clearly essential. But according to Peter Smith, it also has to be fairly flexible. *'Reasonably liberal funding for research (that is, objectives not too tightly defined)'* is needed.

### 6 Flexible yet scientific methods

For Michel Grignon, researchers have to admit that *'the world is not always textbook rational'* and that, as Joan Rovira puts it, one has *'to provide acceptable rigorous results with suboptimal data'*. There is often no evidence for the question asked and for Julian Legrand, *'this requires looking at existing evidence and adapting it to the question asked'*. But it is a hard balance to strike and according to Jim Butler, *'one has to ensure academic standards are not sacrificed on the altar of expediency'*. For Patricia Danzon, A solution is to use *'both state of the art analytic methods and simpler methods, to meet diverse audiences/levels of expertise'*.

### 7 Adequate reward system

The design of an adequate reward system is at the heart of success for most respondents. For Chris Henshall, it consists in *'setting up correct performance review and assessment criteria for research staff'*. You need *'Routine evaluation of uptake and impact - ex ante and ex post, comparison of the two and learning for researchers and decision makers from the results'*.

### 8 Communication skills

Enhancing decision-makers' understanding of what economics has to offer is also considered essential. What matters, according to Ruth Schwarzer, is to *'give decision-makers an understanding of the need for evidence based decisions'*. It requires, as Mark Sculpher puts it, *'taking a strong line on why good science ultimately leads to good policy'*.

Pedro Pita Barros, summarizes the key success factors that were most often listed, while underlining the difficulty in achieving them: '*Still looking for them... but a balance of stable funding, focus on serious research plans and ability to communicate results to policy makers and wider audience*'.

## 3 – Interaction with other researchers

The question addressed here is how important it is, in achieving the dual goal, to develop interactions between applied economists in health care and theoretical economists (3.1), as well as other researchers working in the field (3.2). Practical suggestions are made in order to enhance cooperation (3.3).

### 3.1– How useful is economic theory for applied research in health care?

For those who addressed the question, they stated that pure economic theory would not be of much help when it comes to producing applied work in healthcare. Yet when it comes to peer reviewed publications, some theory is seen as a necessary condition to any applied work. As Joseph Newhouse says, *'I don't think a pure theorist will contribute that much in this context; however, any empirical study ought to have a theoretical model behind it. Of course, that model may not have much novelty'*.

For Alberto Holly, '*it is important to adopt a cross-fertilization policy between the two approaches. Wherever possible, theoretical work should be supported by empirical research. In contrast, empirical work should be based on sound theory. But of course, this policy of cross-fertilization should be flexible enough to preserve independence between these two approaches, notably that of theoretical works vis-à-vis empirical methods.*

For Luigi Siciliani, *bringing 'theory and applied economists together is challenging since they speak different languages, publish in different journals and approach the problem in different ways. Again, open-*

*mindedness is the key. If collaboration is successful, the payoff can be quite high'.*

According to Jim Butler, *'many economics departments favour theoretical over applied work, and there is some professional tension between these two groups. I think that part of the trick to securing cooperation between them is for the applied researchers to concentrate on research questions that spark the interest of theoreticians (while at the same time being of interest to decision-makers)'.*

Some of the applied health economists phrased what they think they would derive from cooperation with theoretical economists. For Eddy van Doorslaer, *'One idea would be to force applied economists (like me!) to already consider how evaluations can be designed in such a way that they can contribute to more generalizable findings. In other words, policy evaluation has to be useful beyond the specific outcome of one specific measure'.*

Sandy Tubeuf also shares the view that it would be important to give *'researchers the opportunity to go further than the evidence-based decision making and provide them with funding for more technical or methodological research work that can be challenging and difficult to be funded'.* Audrey Laporte agrees that getting funding for theoretical work can be difficult but, as she puts it, one has to *'explain to decision-makers that theoretical work needs support as well -that is serves a similar function as theory does in a field like physics'.*

Interestingly, as a mirror image, respondents with a more theoretical background underline what they might gain from cooperating with applied economists. For Tom McGuire, *'theoretical economists might have important insights that would not be well suited to being featured in a theoretical paper. It might be useful to engage theoretically oriented economists in other forms of research and cooperation- such as explicit policy development that may not have at first a particular "theoretical" interest for them. Most theorists enjoy and benefit from periods of detailed involvement in the real world'.*

In conclusion, following Charles Normand, what is important is *'understanding that there is really no difference - the most practical thing*

*is good theory. But one must also encourage an environment of mutual respect, where it is understood that there is no hierarchy and there is no point in theoretical work without some application at some stage'.*

### 3.2– Ensuring efficient multidisciplinary work

For many respondents, such as Randall P (Randy) Ellis, interdisciplinary work is essential. '*Efficient use of interdisciplinary team that includes economists, statisticians, programmers, physicians, plan executives (scientific review panel)'* is what is needed. The next question is therefore how to make such a combination of competences efficient.

What is needed first is mutual respect and open-mindedness. For Giuliano Masiero, what matters is '*the ability to go beyond the (psychological) barriers between different disciplines to focus on common goals rather than convergent approaches; - to accept and welcome heterogeneity between economists, sociologists, statisticians, information scientists, medical doctors, clinicians, biologists; - to promote cooperation rather than competition*'. As summarized by Eddy van Doorslaer, '*a prerequisite for success is being able to talk to each other - i.e. jargon is an issue, but incentives (e.g. for research funding) will help bridge the gap*'.

Beyond medical sciences, one of the important communities of researchers with whom health economists have to relate is that of researchers specialised in Health Technology Assessment. HTA has developed initially rather independently from health economics. And up until recently, most HTAs produced for regulatory purposes, whether for marketing authorization or for reimbursement, did not include an economic part, with a few exceptions such as Britain, due to the existence of NICE[4].

HTAs produced at hospital level mainly included costing and budget impact analyses, with little relationship to what economists were developing under the name of 'economic evaluations' within economics departments. In fact, as noted by Laura Sampietro, '*HTA really is not the same as Health Economics. It is gaining growing interest with the cost*

[4] *National Institute for Health and Clinical Excellence.*

*controlling measures adopted across Europe to ensure sustainability of health care systems'*.

Indeed, the growing requirement to include economic analyses into HTAs both at European and at Member State level has increased the demand for health economists who are in short supply. As a result, the economic component of HTAs is often carried out in units or agencies that do not employ trained economists but rather medical doctors with an economic background.

This has tended to blur the signal as to what health economists can offer, as suggested by Guillem Lopez: '*Health economics is today an empty concept: anyone with few notions of economics can depredate the field. And with such high demand for those professionals, screening for competences is difficult to build. Meanwhile, markets do no 'clear''*. In other words, what funders get is not what they expect because there is no way for health economists to signal their difference in training with HTA researchers and the nature of their contribution. This relates to what Peter Smith identifies as: '*the real difficulty in health economics, (i.e.) not to know where your home is, as there is no faculty as such'*. These factors contribute toward explaining why economics is so often associated with accounting.

There is clearly a need for learned societies such as iHEA[5] to contribute towards clearing the signal, which will improve the functioning of the market for health economists.

More importantly, what is also needed is for health economists to work increasingly with HTA researchers, rather than recoil from this field and leave it to HTA researchers only. As noted by Bob Elliott, '*it is often the case that HTA, when conducted by medical/public health researchers, is mostly a matter of applying existing methods, and cooperation with economists would bring new insights, with joint publication on these methodological advances*'.

This is already happening, as research funding increasingly requires multidisciplinary responses. For Sandy Tubeuf, '*funders are reluctant to*

[5] *International Health Economics Association*

*fund research projects nowadays if there are no health economists on board as the cost-effectiveness of the intervention is a very important component for the evidence-based research'.* And for Andrew Street, it is important to be '*open to opportunities of being junior partners in projects led by people from other disciplines. Health economists are in short supply, but you must ensure that your input into such projects is properly funded and rewarded (e.g. in authorship)'.*

And according to Maarten Lindeboom, '*for applied (micro) economists like me, publishing in high quality Public Health, Social Health or Epidemiology journals can be rewarding. Moreover, I can learn something from specific medical knowledge and the provision of high quality medical data. This all may give me also a high quality economics paper'.*

*Clearly, as* Audrey Laporte suggests, '*those who work in the areas of cost-effectiveness analysis tend to have very well established links to the medical sciences - but with the emergence of behavioural economics, there would seem to be a need to broaden links to other disciplines as well'.*

However, reaching out to other social sciences may have a cost, as mentioned by Luigi Siciliani. '*Already closing the gap between two disciplines can be challenging. Multi-disciplinary teams with more than two may be appropriate for specific topics, but for many, this may not be necessary. It increases coordination costs, which may not be negligible, due to different publication strategies and outlets'.*

Beyond, and more importantly, for multidisciplinarity to be efficient, one important condition must be fulfilled. According to Eddy van Doorslaer, '*multi-disciplinarity should lead to inter-disciplinarity. By that I mean that one should be good in one discipline first before being able to contribute to the dialogue. Otherwise, multi-disciplinarity risks leading to non-disciplinarity'.*

Finally, for Erik Schokkaert, '*the dividing line is NOT between the disciplines but between researchers that are analytically and empirically oriented and those that are not. You find the former in all disciplines (perhaps, I am sorry to say, a bit less in France) - and dialogue is fruitful and not so*

*difficult. I find it extremely difficult to foster dialogue with non-analytically oriented scientists (whatever their discipline...)'.*

### 3.3 - Practical ways to enhance cooperation

Some of the practical solutions offered here are generic ways of ensuring cooperation, be it with theoretical economists or with researchers from other disciplines.

All respondents agree that this is not something that can be forced, and that it does require some form of encouragement. For most respondents, informal interaction is 'number 1' for such cooperation to develop. As Tom McGuire puts it, *'"Geography" is important, where people sit, who they interact with regularly'*. For Albert Ma, '*the organizational structure should be open and researchers should be available for consultation'*.

#### 1 – Changing the incentive structures

Many suggestions were made in this respect, going from system level to team or even individual level incentives, either cast in terms of carrier advancement or in the form of financial incentives.

#### Macro level incentives

Sigfried Walch shares the view that deep changes have to take place in the reward structure. *You need to 'link reputation and career of researchers to their overall contribution to society; not to peer reviewed papers only'*.

For Reinhardt Busse, publication incentives have to be revisited: '*some "health related" journals, in spite of a high Impact factor, are not well looked upon by economists. In fact, health economics is at the boundary between different disciplines. In some circles, the British Medical Journal or the Lancet is the reference but economists sometimes don't even know these journals. This could be called the "What is the Lancet?" syndrome. In order to bridge the gap, it would be important to approach both faculties to better reward economic contributions in medical journals'*.

Setting financial incentives at team level by *'rewarding joint grant applications' is proposed by Mathias Kifmann and Joan Rovira also shares this view: 'you must 'give priority in funding to research by teams with the various types of researchers and set up incentives for interdisciplinary research'*.

### Micro level incentives

Most frequently, it is individual rewards that are envisaged. Guillem Lopez suggests *'mixed payment schemes for researchers which include a payment for performance component'*. But the performance indicator for the variable part of the remuneration can take various forms.
Patricia Danzon suggests individual incentives to reward participation in teams. *'Tying some compensation to participation in these team efforts and in group research projects is necessary to counteract individual incentives'*. Richard Scheffler shares this view and proposes to *'Reward in part by team effort'*.
Jurgen Maurer suggests *'Multidimensional performance rewards (publications, grants, documented policy impact/impact on clinical practice).*

Giuliano Masiero adds the idea of a two way incentive scheme based on individual performance for both researchers and decision-makers: *'(Financial) reward for researchers should consider some measure of the application/use (successful transfer) of their research (methodology /results) to evidence-based decisions. So, we should go beyond the measurement of academic publications in peer-reviewed journals, ISI, citations, etc. to include the "impact" of the research in terms of "influence on decision-makers". Publications in not-strictly academic journals/ interviews (radio/TV), regulations passed, could suggest some measures. Conversely, decision-makers could be rewarded, to some extent, according to their ability to propose/pass/adopt decisions grounded on policy-oriented research. Decision makers could be asked to produce evidence-based decisions, hence to refer to academic publications, to cite research papers'*.

But not all economists agree on the need for individual financial incentives. While some economists support the idea of using the very tools they recommend for others, i.e. payment for performance, others are

reluctant to use them for researchers or simply not convinced they are needed. As noted by Katharina Janus, '*One has to understand first what makes people tick. Some value the interaction in groups of experts while others need the extra money to get interested*. In fact, as noted by Erik Schokkaert: '*there may be no need for them as having access to good data is often a strong enough motivation for researchers*'.

For Simon Burgess, '*Academics will be reluctant to any "obligation" of working on something or for someone. You have to make policy-makers and academics interests match through more subtle mechanisms than direct incentives*'.

In all cases, for individual financial incentives to be used, performance indicators and impact measures have to be defined. Yet measuring impact requires tracing causality between research, recommendation, and decision. This whole area has developed around the concept of Knowledge Transfer and Exchange (KTE)[6], as underlined by Tony Culyer, and this too is a promising area of research.

## 2 – Changing interaction modes

Many different formats have been proposed to develop multi-level cooperation, be it at research or teaching level.

### Joint seminars and workshops

With policy-makers, a pre-requisite, according to Pedro Pita Barros, is to develop mutual trust. This is best achieved through meetings with '*closed doors, open discussions*'.

To develop interactions between theoretical and applied economists, Martin Gaynor suggests to: '*Foster a spirit of collegiality and cooperation. Workshops where everyone attends, informal socializing (e.g. at lunch). A focus on the problems is essential*'.

[6] Mitton C, Adair CE, McKenzie E, Patten SB, Perry BW [2007], « Knowledge transfer and exchange: review and synthesis of the literature ». *Millbank Quarterly*, vol.85, p.729–768.

Mixed seminars are most often suggested. For Erik Schokkaert, *'Seminars with "mixed" discussants: ask theory people to react on applied work and vice versa'*. Audrey Laporte develops further this idea: *'invite both theoretical and applied economists to present but also perhaps require that they include a preamble that explains the relevance of what they are doing for theory (in the case of applied researchers) and empirical work (in the case of theorists) but for both to explain how what they are doing may inform decision- making/planning'*.

For interactions between health economists and other disciplines, Jim Butler considers that *'Joint seminars and research workshops can help to build linguistic bridges between disciplines. But it requires a degree of good will by participants who agree to avoid high-level jargon peculiar to their discipline in the interests of having constructive cross-disciplinary dialogue'*.

### Training, joint supervision and teaching

A number of respondents suggested training for economists or for policy-makers as a way to enhance mutual understanding and cooperation. Pedro Pita Barros suggests coaching 'researchers on how to interact with decision-makers' while for Laura Sampietro, *'another key success factor is the availability of high quality training courses for clinicians'*.

Cooperation can also be fostered by joint supervision and teaching. To develop interactions with theoretical economists, Peter Smith suggests *'Contributions of health economics modules to mainstream Masters programmes'*. Maria Goddard also suggests *'Shared supervision of PhD students and joint funding applications'*.

### Mutual exchanges

Many forms of interaction were identified to enhance cooperation with decision-makers. Michel Grignon reckons that *'supporting PhD students in a policy-oriented program, in exchange for placement or internships is a great mechanism as well: students learn a lot and are attracted to positions within the decision-making unit.* For Erik Schokkaert, *'encouraging supervisors to meet policy-makers and be accompanied by their Ph.D students is also a good way of linking research and decision-making'*.

For Andrew Street, this could extend beyond student interaction or exchanges: '*providing short-term placements, and particularly so for decision-makers visiting research centres is a good way to ensure interaction. But in the latter case, it is essential to have a clear project and to select participants who are most likely to benefit from the exchange*'.

For Bob Elliott, '*you may encourage (incentivise) attendance and presentation by health economists at health service research and medical professional (doctor, nurse, AHP, NP) conferences*'. For Fred Paccaud, one should '*increase the number of joint positions: morning at bench, afternoon with decision makers*'. For Jan-Erik Askildsen: '*academic membership of key policy committees is a good way to foster interaction*'

A large number of clear principles and concrete actions have been proposed by respondents to develop multilevel cooperation, as can be seen from this last section. Some of these proposals are directly relevant to the new entity and will be pursued further in the next section.

## 4 – Recommendations

All respondents considered developing a new research entity dedicated to hospital research as serving a useful purpose. They made recommendations, based on their own experience, on focus, governance and organisational issues (4.1) as well as funding and visibility (4.2). Suggestions were subsequently made on the work programme and prospects for collaboration were also offered (4.3).

### 4.1– Focus, governance and organisational issues

#### 1 – What the entity should not become:

##### Neither a hospital management unit …

Respondents questioned the fact that the new entity should restrict its' perimeter to hospital analysis. For Tom McGuire, '*the focus on hospital is interesting because there is so much to do in this field and it allows differentiating oneself from other research structures.* But for others, like Erik Schokkaert, '*what is at stake today is to keep people away from hospitals and a hospital funded research institute may not be in a position to deliver this kind of message (or it may not be perceived as sufficiently independent to say that). Diversifying financers may be useful in this respect'*. Working on care pathways will also reduce the risk of being only focused on hospital internal organisational processes, and in particular on disinvestment issues.

### Nor a think tank …

For Simon Burgess, '*it is better to stick to facts and be more into evaluation of public policy rather than become a recommendation body: you are not a think tank'*.

### Or an HTA consultancy firm

On the question of how much the new entity should invest in HTA, all respondents agree to say that this is clearly where the money is today and, as said by Pedro Pita Barros, '*most policy makers believe that cost effectiveness will solve their problems, so this needs to be present somehow'*. And for Peter Smith also, *'it is important to have some of it done, as this is what economists are expected to do. But it is important to focus on methodological issues and be able to refer to others doing HTA when needed'*.

A mixed portfolio is appealing to Stefano Capri: *'it is a challenging idea to do health technology assessments, regulatory decision advice and academic research. There can be a big value of doing this because the regulatory part is also important for industry. Having both insights in regulatory economics and HTA is very attractive for potential partners. Knowledge of regulatory issues helps HTA and vice versa (idea of dynamic impact)'*.

Doing some HTA is also an important way to interact with medical sciences. For Rosella Levaggi, '*Medical doctors nowadays recognize that*

*economics is essential for decision-making. However, it should not be forced on them: the idea is to make them think about the economic consequences and they will readily ask for advice'*. Laura Sampietro also suggests doing some '*Hospital based Health Technology Assessment, which should include research in the area of making health care professionals understand how they can use HTA in their every day decisions and make them aware of the relevance of HTA. Additionally, research in how to better educate hospital decision-makers to use hospital based HTA results'* would be useful.

For Laura Pellisé, '*On HTA, counter-expertise & methodological support is the way to go. It's better to let other producers such as IMS to do the actual evaluations, all the more if this involves private companies'*. And for members of IEMS in Lausanne, *'what is important is to coordinate effectively with existing hospital HTA units when they exist'*.

In conclusion, for Bob Elliott, *'it would be better for the new entity to investigate new methods drawn from economic theory and evaluation of public policies'*.

**Recommendation 1: Position the entity as a useful reference centre, for methodological issues in HTA and economic evaluation of public policies, with a wider lens than hospitals, around care pathways.**

### 2 – Defining interactive governance

For all respondents, the most important lever to achieve the dual goal is interactive governance. Most agree to say that two types of structures have to be set up. For Andrew Jones, *'a scientific advisory committee is important in order to define the broad agenda and to solve possible disputes while a management committee will be useful to ensure disciplinary balance and diversity*. Erik Schokkaert also suggests two separate structures: *'on the one hand, a scientific committee where technical issues can be discussed between economists in a protected sphere and on the other hand, an executive committee. There could be some overlap between the two committees'*.

In line with the general principles defined in sections 2 and 3, additional proposals are made to ensure that governance itself contributes towards achieving the dual goal.

### Early and continuous interaction with stakeholders

For Andrew Street, '*giving decision-makers and financers an opportunity to react at the various stages of the research (scoping, first draft, penultimate version of the report) is a good way to ensure they are on-board and interested. This strategy will alleviate, to a certain extent, the tension due to different timescales between decision-makers and researchers*'.

For Audrey Laporte: '*a strategic advisory committee is useful to give financers the feeling that they are getting a return on investment, even if they have no input on the content of research*'.

And for Erik Schokkaert, '*you need to have a "Council" of advice - not filled with "representatives" of official institutions, but with interested people*' and '*once a year, a stakeholders forum could be organised (including interested people, be they decision-makers, politicians or patient representatives) to get their reactions on the research agenda and the results.*

And when it comes to the publication of results, for Michel Grignon, '*there must be clear rules on publication: all results must get published but preliminary results can be given for review to the funder 30 days in advance. Although they cannot be changed, feedback from the funder will be welcomed. Funding justifies the heads-up*'.

### Explicit contracting with impact follow-up

On the basis of IEMS's experience, what matters is to '*clarify expectations with the definition of annual targets indicating achievement of objectives and to allow the financing body to track its return on investment, for example through allocation of specific resources*'.

One suggestion made by Peter Smith, in order to make the return on investment more tangible, is as follows: '*It is advisable to have 25% of total*

*activity related directly to funders' questions, in order to demonstrate the ability to engage in real world issues. The question then is which deliverables are expected under these 25% and who produces them, knowing that it is less rewarding for researchers, as it is harder to publish'.*
John Appleby also suggests *'to have an "on call facility" (which) is a very interesting system because there are overlaps between short-term (sometimes a few weeks) deliverables and long-term research. However, the number and nature of demands must be carefully defined in advance, otherwise it can be overwhelming.*

Drawing upon his own experience, Maarten Lindeboom also says that *'notably private parties (and to some extend policy makers) expected value for their investment on a relatively short-term notice. An issue was also the communication of such results. This resulted in the organisation of a lot of special meetings between researchers and private parties and events to communicate the findings from research to the private parties. This is understandable, but too much administration of this kind scares of the best researchers'.*

This option clearly has important implications for the internal workload of the future entity and its reward system, which have to be addressed. And at individual level, it may be more difficult to implement an individual reward strategy, as noted by Bob Elliott. *'Rather than reward outcomes, which are difficult to assess, it may be wiser to reward process. Intermediate indicators could be defined, such as number of events organized (workshops, seminars, summer schools, …), and the number of interactions with the general public (websites, policy briefs, …).*

**Recommendation 2: Develop interactive governance with strong bilateral commitments, as well as impact and process reviews, to measure return on investment.**

### 3 – Adopting balanced recruitment and flexible manpower policies

Most respondents underline the fact, as does Terkel Christiansen, that what matters is to *'have a stable staff of researchers who can see a career-path in the institute (rather than considering the institute as a stepping stone to something else). Researchers should have a not-too-*

*narrow expertise, and both a professional expertise as well as communication abilities'*.

### Securing strong links with economics department

Following the discussion on multidisciplinarity and the risk of non disciplinarity (section 3.3), the recommendation by Tony Culyer is '*not to seek to embody all disciplines in the unit'*. For Jan-Erik Askildsen, '*an important success factor for economists to be respected in their ability to advise on modelling strategy (as opposed to simply calculate costs) is to anchor the research group within a general economics department'*. This could take the form of '*part time appointments with academic departments'*, according to Peter Smith. And for Erik Schokkaert, it is important '*that economists are not isolated and that they have the critical mass necessary for publication.*

For Alberto Holly, associating education programs is important in order to achieve the dual goal. The suggestion is '*a) Setting-up an internationally renowned PhD Programmes in Health Economics and Policy, b) Setting up an interdisciplinary academic Master program professionally oriented'*. This would help accompany the much-needed change of culture and ensure support at health policy level.

For Bob Elliott too, a Master course, closely related to the future entity, is '*absolutely necessary'*. For Eddy van Doorslaer, '*embedding health economics educational programmes (both in economics and health/medical sciences)'* is seen as essential for the future entity. And the experience at IEMS also shows that '*overall, the training activity was a key success factor for several reasons including the ability to be the network head of all local forces in health economics'*.

**Recommendation 3: Secure strong links with economics departments through joint positions and develop companion Ph.D programmes and master courses.**

### Fair and open recruitment committees

Although economics should clearly be the main discipline, a suggestion made by Joseph Newhouse is to also recruit '*medical doctors with an*

*economic Ph.D'*. They are very helpful in achieving the dual goal of academic publication and policy-relevant advice. And for Reinhardt Busse also, *'it is important to recruit economists who are not too theory-oriented. Equations are not very useful to decision-makers. Some researchers are better placed at doing both, in particular those in health services research with an economic background. But keeping the balance between the two is a constant fight and a real challenge. Juniors often hesitate between Health Services Research and Health Economics. Selection committees need to be open to both'*.

Based on the experience of IEMS, *'what is important is to 'set up a recruitment committee that guarantees a fair balance between profiles and disciplines*'.

Joan Rovira suggests that '*out of ten researchers for instance, 2 could have a pure academic profile, 2 could be mainly policy-oriented, the remaining 6 having mixed profiles. Having academics is important to ensure that the methods chosen are adapted to the needs of the study. Statistical inputs are also important'*. For Bob Elliott also, *'the minimum critical mass of research staff if the Institute is to establish International profile is in the range of 10-12 researchers'*.

Other skills may need to be hired by the future research entity. For Martin Gaynor, '*all research topics may produce deliverables useful to decision-makers but they need to be translated to come under their radar. Translation, however, is a complementary skill which researchers do not acquire easily as they mostly communicate with other researchers. If there is no specific skill or taste for dissemination, incentives will not be enough to induce researchers to engage in translation and support staff may be a necessary investment'*. Management and legal competences were also brought to the fore as being important efficiency drivers.

**Recommendation 4**: **Adopt a fair and balanced recruitment policy between profiles and disciplines, keeping in mind that what matters most is for researchers to be inspired by the interaction with decision-makers.**

### Flexible workload allocation rules

Andrew Jones underlines the fact that in some countries, such as the UK, '*an internal flexible workload allocation model has been used to balance teaching, marking, supervising and research. Time for research can be bought off from teaching by external funding*'. Allowing flexible workload allocation and in particular, giving more value to policy-oriented research should be made easier in the UK through the new Research Excellence Framework (REF), which should be completed in 2014. This scheme, developed to assess the performance of research bodies at national level, gives an increasing weight to policy-oriented research and administrative responsibilities.

The next question is how to allocate work and rewards within the unit.

For Sigfried Walsh, '*a key challenge is the allocation between different tasks within the centre. One should reward equally: publication, engagement with stakeholders, teaching and supervision of students. There can be some kind of internal trading and the teaching load, for example, can be reduced if there is extra funding from soft money*'.

For Carl-Hampus Lyttkens, '*in terms of the unit internal division of labour, it might be advisable to have junior researchers do the more theoretical work, which is best for their carrier advancement, and have the more senior staff engage in dissemination and interaction with decision-makers*'.

For Simon Burgess, '*sometimes short-term deliverables can take the form of "evidence reviews", due within a month. This kind of research can be done by research assistants, post-doctoral fellows or PhD students. Senior researchers, for their part, must engage in policy by interacting with policy-makers and the media*'.

For Bob Elliott, what is needed is an interaction between national and internal reward systems in order to '*create a reward structure for economics departments within leading universities and align with that a reward structure for staff within those departments that incentivises policy contribution and ensures that a component of individual researchers reward is contingent on evidenced policy impact*'.

**Recommendation 5**: **Encourage internal flexibility and reward policy-oriented research and dissemination.**

## 4.2– Funding and visibility

### 1 – Pursuing financial sustainability

Carl Hampus Lyttkens wittingly expresses what all respondents must have thought of the question: '*to have long term funding is essential. To get it is less easy. If I knew for sure how, I would have done it already*',

To most respondents, the ideal would be for the government to provide long-term core funding with additional, co-investment by a leading independent research University. Indeed, for Randall P (Randy) Ellis, '*getting government support is the best strategy*'. For Bob Elliott, this would matter as the entity has to '*establish first a reputation for independent, impartial, objective, robust research at the outset. Partnership with a commercial organisation would be misinterpreted. A contribution to funding from a non-commercial charitable trust organisation is however to be welcomed*'. Respondents, like Richard Scheffler, Joseph Newhouse and Claude Montmarquette recommend this route to financial sustainability, in the form of endowments or foundations. Anne Lemay also suggests '*a joint venture between universities, private sector and regulators*'.

But Tony Culyer rather pragmatically notes that, '*there is no such thing (as financial sustainability). Second best is multi-year contracts and programme rather than project support. Parent institution should give some guarantees and support key posts*'. For Maria Goddard also, '*Programme grants (5 years) are an essential basis for planning and then have a mix of medium and shorter term funds as well*'.

For Alberto Holly, '*an important point is to be on the regular budget of an institution, whether academic or not, providing a long-term stability of a large part of the budget of the institute (between 60 and 70%). The remaining part could come from external sources. Among these, one possibility could be to obtain a sequence of medium terms agreements*

*with a public administration interested in funding policy-oriented research. These medium terms agreement could, for instance, cover a three years period during which research assistants could spend 15% of their time on their own PhD thesis'.*

### Strategic leverage between short term and long term funding

For Martin Gaynor: '*One possibility is to get long term funding for core activities (e.g., overhead, data centre, etc.) and leverage that to obtain project specific funding. If the core, long term funding finances the creation of a powerful database, that database will be a valuable asset that can be used to leverage funding for projects'*. Andrew Street also suggests that '*The institute could focus on finding long-term funding for core activities like a data centre and use this as a leverage to obtain project specific funding'*. But then, as noted by John Appleby, what '*has to be put forward is that this short-term work can only be carried out because of the long-term research that is produced by the centre'*.

For Andrew Street, what is important is to '*1. Invest in some core production lines (research themes), which will deliver regular outputs on an on going basis. 2. Identify weighty areas of research that are not merely transient, of-the-moment policy concerns but instead that address persistent challenges. 3. At the same time, retain some capacity for short-term projects, maintaining a balanced portfolio of short- and longer-term projects.*

But as noted by Jan-Erik Askildsen, '*it is a knife-edge problem to balance core funding and soft funding*'. And it is hard to resist the consultancy spiral. For Julian Legrand, '*the (other) danger in engaging in short term consultancy contracts is that a loyalty often develops for researchers recruited for the short-term project and the director then spends most of his time putting new bids for consultancy projects, with units growing to large sizes (40 people). It is a standard occupational hazard and while one needs soft money, short-term money should be avoided. Specialization should be avoided and the production of short-term deliverables should be shared in the team'*.

**Recommendation 6**: **Ensure cross fertilisation between short term and longer term productions while avoiding the consultancy spiral.**

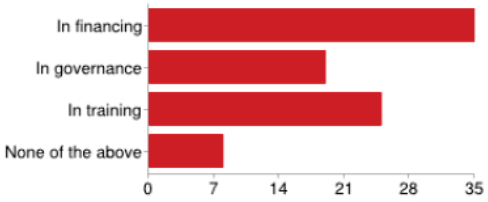
### Phased in and controlled involvement of private partners

In response to the survey question of whether private partners should (or not) be taken on board for financing and/or governance and/or training, only 9% explicitly respond 'none of the above'. For those who strictly oppose the involvement of private parties, the argument is that it complicates matters. And it is important for the new entity to be seen as unbiased and independent from any public or private interests, which could endanger its reputation.

For those who think that private partners can be taken on board, they agree that strict rules have to be defined and conflicts of interests (CoIs) actively managed. But responses vary according to the nature of private parties involvement.

40% of respondents think private partners can participate in financing, the argument being that they have a significant impact on health care systems, both through their own production activities and their potential for research funding. Because governments can no longer commit in the long run, turning to private funders is an opportunity, provided a number of strict conditions are fulfilled. For instance, they should not have control over research. And funding sources must be is disclosed, as suggested by Jurgen Maurer: '*All findings have to be open access and publishable without special clauses for non-disclosure for the funders*'. In fact, for Martin Gaynor, '*All funding of the institute and all researchers should be completely transparent*'.

**6. Should private partners be taken on board?**




| | | |
|---|---|---|
| In financing | **35** | 40% |
| In governance | **19** | 22% |
| In training | **25** | 29% |
| None of the above | **8** | 9% |

22% think private partners could also be involved in governance, as they are decision-makers too. '*They have expertise and resource and are part of the answer*' says Chris Henshall. For Laura Sampietro, it is also important to '*involve private partners in the governance structure where they could have a position of observer, with voice and no vote*'.

Up to 29% of respondents agree with taking private partners on board for training activities, the argument being to strengthen the employability of students.

Andrew Street suggests managing conflicts of interests at the following three levels: *1. At institutional level, you should have a stakeholder/advisory group to help you with your strategic direction, offer guidance on your priorities, help resolves CoIs and help raise your profile. 2. At researcher level, you should have clear lines of accountability and management, annual review of performance, etc. 3. Clear employment rules, guidance and transparency will help foster a collaborative working environment*'.

What remains contentious between those in favour of bringing private partners on board for financing is the timing: should private partners be involved from the start or should one pursue a more phased-in approach?

Mathias Kifmann considers that '*financing is a sensitive issue, as the institute's independent reputation is at stake. Once this reputation is established, specific projects with private partners should be fine*'. Patricia Danzon also shares this view: initially it is '*better to get the public policy focus established without private partners. Their mandate is to pursue their interests, so their influence can be distorting. But include them as participants at meetings and later perhaps in other functions, once the norms have been established*'.

For some respondents, the phasing in of private partners might generate increasing demands (in particular for HTA studies), to the point where, as Bob Elliott suggests, '*running a consortium might be an answer. The future entity could still take the intellectual credits but the consortium would help provide the deliverables in good time*'. Tony Culyer also suggests to

*'possibly set up a consulting group drawing on the unit's academic membership'*.

**Recommendation 7**: **Progressively phase in private partners under strict publication rules and active management of conflicts of interest.**

### Diversification is the way to go

*'In the long term, diversification is more sustainable', says* Andrew Jones. Mark Sculpher shares this view and for him, *'diversification is preferred where possible, including teaching, short term training courses, project funding and longer term programme grants. International versus national funding is also a way of securing diversification'*.

Diversification also serves the purpose of independence, as noted by Audrey Laporte, *'to maintain a reputation for unbiased research, it would perhaps be a good idea to have a diversity of funding sources (contracts, research grants, government)-recognizing this is a lot more work than having one large donor'*.

Charles Normand summarizes what would be ideal in terms of funding: *'a mixture. Some endowment type funding provides useful security. Some commissioned projects give funders some useful direct control. Some competitive funding allows standards to be maintained through conventional peer review. No one should completely own the centre'*.

**Recommendation 8**: **Adopt a portfolio approach with strict rules guaranteeing financial independence.**

### 2 – Enhancing national and international visibility

All respondents associate visibility with high quality productions and publications. As Mathias Kifmann puts it, *'In the end, it is about good research results'*. For some respondents, like Joseph Newhouse, Pedro Pita Barros or Fred Paccaud, visibility comes through publication and publication only.

For others, like Martin Gaynor it requires investing in dissemination. His recommendation is to '*Publish reports/papers that decision makers find useful -- become the "go to" source for certain kinds of information. These can sometimes be simple descriptive reports. Engage decision makers with timely briefings on topics of importance to them'*.

Others suggest additional means to acquire visibility, such as social media and networking. To them it is often time consuming and it requires special skills that may not be readily available. But these dissemination strategies are an integral part of the visibility process today.

Amongst these strategies, social media is clearly a must. For Andrew Street, *'it may be wise to invest in media teams or website specialists who will help produce visuals and will communicate with social networks. A twitter account is a very effective way of bringing results to journalists … rather than wait for them to make the first move'*. Sandy Tubeuf also suggests using '*social media (Research Gate, RePeC, Twitter, etc.), developing a user-friendly webpage and disseminate its existence via various mail-lists'*. For John Appleby, *one must use 'every medium to publish/publicise research findings - from Twitter to newspaper/magazine articles. Hardly anyone reads academic journals I am afraid! Be ready and prepared to do broadcast media too'*.

Networking is just as important, as noted by many respondents. For Peter Smith, it is also useful to engage '*with international agencies (WHO, World Bank, EU, Gates foundation) even if not directly related to core business'*.

More specific strategies were also listed: Randall P (Randy) Ellis suggests to 'sponsor a table at the iHEA meetings'; John Appleby suggests '*building up a one day annual conference to showcase work, help network with policy makers'*. Audrey Laporte suggests '*international placements for Centre students abroad and also studentships for visiting students'*. Laura Pellisé suggests '*investing in MOOCs and international educational programs'*. Richard Scheffler suggests making '*the entity's first report a block buster*'.

**Recommendation 9**: **There are multiple routes to "fame" … don't overlook any one of them. But good academic publications come first.**

## 4.3 – Work programme and collaboration prospects

Most of the respondents agree to say that it is partly country specific and that the main research themes must be decided in collaboration with funders and policy-makers to match their real needs. Given this, respondents have usefully pointed to a number of strategic directions for research development and have identified research topics of international relevance.

### 1 – Early identification of research potential

The starting point here is whether it is better to define the research program by starting from decision-makers' topics to subsequently get back to theory and academic publications, or vice versa, Reinhardt Busse, like other respondents, '*considers that there is not a single answer to the question. Policy-makers will demand short-term deliverables and their request will have to be dealt with, like it or not. But the reverse approach may also be fruitful. It involves identifying a niche where one wants to be recognized and have international visibility*'.

Tony Culyer suggests using '*the Knowledge Transfer and Expertise (KTE) process to identify the main topic areas, followed by a good hard look at what novel theory/methods delivering those products might entail, thereby developing an integrated portfolio of theory/method/disciplinary mix/application*'.

For Jim Butler, what is needed is a *'horizon scanning' mind-set to ensure research projects are tracking emerging issues'*. Amongst possible candidates, preferred research themes should be those '*that are amenable to analytical work, which will result in usable evidence, are of sufficient scope to be of interest to academics' inquiring minds and which offer a realistic prospect of publication in the scientific literature - small scale, microscopic work, e.g. an analysis of the efficiency of an imaging unit in one district hospital, is unlikely to be of sufficiently broad scope unless it provides generalizable conclusions or contributes to methodological development*'.

For Peter Smith, what matters is to '*choose research topics that are strategic for decision-makers, especially those which can sustain medium- or long-term research projects; Separate out research from short-term activity of a "consulting" type (through a consortium, if necessary). Topics could be mergers between hospitals, business cases, coordination issues, HTAs, etc.)*'.

**Recommendation 10: Use Knowledge Transfer and Expertise – KTE, horizon scanning and analyse the potential for academic publication versus short term deliverable at an early stage. Develop a joint process between decision-makers and economists to define the research agenda.**

### 2 - Enhancing access to original data

Although most respondents agree to say it depends on the legislation of the country, they recognize that access and use of original data is a key issue. For Alberto Holly, '*Getting access to privileged data is one important element towards achieving this dual goal*'.

Simon Burgess suggests the following: '*It could be interesting to create a "user group" to set up larger datasets, and enable access to any interested research team with strict security rules on data use (for example with the obligation to work on the data in a given location)*'. For Andrew Jones, the development of original databases should help achieve the dual goal and ensure cooperation between researchers in the field. He suggests '*using existing administrative data or other sources such as registers, matched to build innovative longitudinal datasets ready to use for research*'.

To do so, what matters, according to Guillem Lopez, is '*networking, leading the process of data building and money, if needed*'. Respondents have identified the steps towards enhancing access to original data.

#### Making the case for data access

An indirect way to make the case for easier access to data is suggested by Joan Rovira: '*Refuse and criticize the use by researchers of information which is not publicly available as bad "science", because research based on it cannot be reproduced*'.

Most respondents suggest explaining to leading practitioners, policy-makers, patients and the media the gain to be expected from enhanced access to secured data. For Randall P (Randy) Ellis, it is important to '*devote time and effort to discussions with the administrators who hold the data to ensure release is seen as a priority, and to collaborate with Medical Schools or hospitals who can have access to data for medical practice, and may be able to justify some research use as facilitating improved quality of care*'.

For Peter Smith, one must '*make a strong ethical argument that barriers to access are damaging (future) patients' health, through lack of research capacity*'. For Bob Elliott also, one must *'establish the case that access to this data can provide substantial benefit to patients and improve health outcomes. Focus on one or two major disease areas and explain to policy makers and leading practitioners how research has improved treatment and service delivery, then evidence how much greater the gain could be if access to these data were secured. Establish a dialogue with patient groups to do the same, as well as with health correspondents from the 'quality' newspapers and television and radio, to discuss the benefits to patients of access to such data*'.

### Building trust by defining clear rules and processes

For Laura Sampietro '*rigor, transparency and cooperation spirit between those who have the data and those who use it should drive any action dealing with data*'.

The next step is therefore to define clear rules that will help build trust among stakeholders. For Randall P (Randy) Ellis, one must '*work to establish processes and safeguards that linked data from patients will be anonymised, kept securely and not used for commercial advantage*'. The processes will require time and competence to '*standardize the variable formats, valid values, clean data to remove messy records or variables (e.g., negative spending amounts, duplicate claims), document data to simplify use, support training in uses of data. Get a Law professor to help draft contracts and help simplify use agreements*'.

### Developing networks

For Jim Butler, *'having government statistical agencies as partners is very useful if possible - these agencies are politically independent, are durable institutions whose future is not subject to the vagaries of research funding, and have a wealth of expertise in data collection and management'*. *'Secondments of researchers within organisations that hold data'* is also an option suggested by Tony Scott.

**Recommendation 11: Use facilitated access to original data as a lever to foster researchers' interest and cooperation. Make the chair a portal for data access.**

## 4.4 – Research topics, expectations, and prospects for collaboration

### 1 – Suggested research priorities

The question addressed here is which research topics will be beneficial to policy-relevant productions by the future entity[7]. Respondents answered that the topics presented in the introduction of the survey, as potential areas of future research, would be relevant. Additional topics were suggested.

#### *Research themes with an empirical component and in the public eye*

*'These (research themes) could be many, although they should be questions that can be addressed empirically'*, says Joseph Newhouse. Erik Schokkaert shares the view that *'this should be possible for all research themes, IF they have a strong empirical component'*. For Randall P (Randy) Ellis too, *'empirically based studies on topics chosen by policymakers are more likely to be noticed'*.

Charles Normand mentions his choice *'to work in areas where the issues are very visible, such as in care at the end of life. The idea is to understand more general issues through the lens of the more stressed setting.* Ageing is also conducive to more general policy considerations. *'Ageing - study of the effects of the ageing of the population provides a framework within*

[7] *This question was unfortunately phrased in an ambiguous manner in the survey and a number of respondents replied that what was expected was unclear to them.*

*which many other issues can be explored. It can help understand wider issues on financing and access to care'*.

Other topics closely related to public health issues were suggested. For Bob Elliott a priority could be '*research that investigates mechanisms for incentivizing healthy lifestyles and behaviours by the public*'. For Giuliano Masiero, topics of interest would also be *'risk behaviour and prevention policies to avoid health hazards among teenagers. In particular, the use of alcohol, addictive drugs, abuse of social networks, are of interest for modern society since these undermine productivity and increase future health care costs (obesity, cardiovascular diseases, depression...)'*.

For Michel Grignon, another selection criterion would be to choose topics which require strong interaction with decision-makers, such as *'funding (payment schemes), as there is no other way to conduct good research in the area than to conduct it in partnership with decision-makers. And also, Health Human Resources, for the same reason (plus Medical Education) as it is a black box that needs to be opened'*.

Finally, as noted by John Appleby, '*one cannot always go back to theory: some of the consultancy work will never lend itself to academic publication'*. Indeed, as noted by Patricia Danzon, '*evidence-based research is sometimes necessarily micro and context-specific, whereas policy conclusions often require broader generalization'*.

**Recommendation 12: Prioritize applied, visible topics, which will benefit from the direct interaction with decision-makers. Recognize that while there is some intersection between academic and applied research, it is not complete: some applied topics will not lead to academic publications and *vice versa*.**

### *Measurement and evaluation*

For Andrew Jones, the topics to invest must focus on '*Measurement and evaluation'*. For Patricia Danzon, three areas can be investigated: *'Evaluation of alternative organizational arrangements to address agency issues. 2. Evaluation of alternative reimbursement/payment arrangements. 3. Evaluation of barriers to access/equity that are unrelated to health care system design'*.

Peter Smith suggests *'ex post evaluation of pseudo-experiments in health services using econometric methods; Exploitation of large and complex data sets ; Ex ante evaluation of new technologies or new modes of service delivery'*. For Michel Grignon also, *'studies using quasi-experimental designs are good ways of illustrating the impact of various modes of payment (payment by performance – P4P- versus capitation or fixed wages). These studies achieve both policy-relevance and good publication standards'*. Claude Montmarquette suggests investigating *'the social rate of return of investing in health'*.

### *The use of comparative analysis*

According to Stefano Capri, *'comparison of cost-effectiveness studies performed in the European countries, not only the comparative results but also the methodological issues related to this kind of reviews'* could give a good insight of the international situation in order to investigate the possibility to introduce competition in the health system and to extracts the better of other countries' systems.

### *Hospital issues addressed in their wider environment*

In the future entity's specific perimeter, Richard Scheffler suggests *'Measures of hospital quantity and cost'* and so does Mathias Kifmann: *'quality in hospitals, which are easier (topics) to get promoted. Also key expenditure drivers tend to attract attention'*.

Anne Lemay underlines the need to work on *'quality and efficiency indicators for health care institutions'*. To her, *'what would be interesting would be research in health economics at macro level or on issues such as financial incentives for hospitals or ambulatory care. There is no advice for decision-makers in hospitals on merging issues and hospitals' optimal size'*.

And for Randall P (Randy) Ellis, *'Rather than focusing on potential savings and efficiency gains in the hospital production function, or alternatively giving more resources to hospitals, the emphasis in the US today is on how to reduce their workload by preventing hospital use'*. This is confirmed by

Joseph Newhouse: '*At hospital level, what is of interest in the US relates to badly handled post discharge care and on bundling with post discharge*'.

For Giuliano Masiero, the future of hospital care should be one of the priority topics: '*how should a modern hospital be organized and integrated within the health care system? New policy-oriented research should focus on the patient rather than separately on the type of supplier (hospitals, GPs). We need evidence-based decisions for an integrated health care system made of different suppliers who follow the patient*'.

**Recommendation 13**: **Select measurement and evaluation topics related to integrated health care system issues, with an international comparative approach.**

### 2 – Expectations and prospects from collaboration

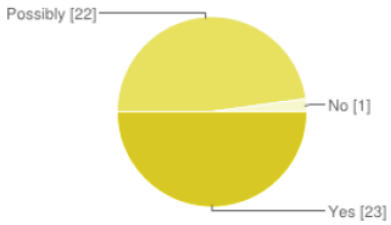
#### *Strengthening the links with the international scientific community*

A new research entity in France could help develop the European and international networks for Health economics. International comparative research and benchmarking can help drive up international standards in science and scientific impact. Researchers from different institutions could lead common projects.

#### *Learning from cross national experience and sharing expertise*

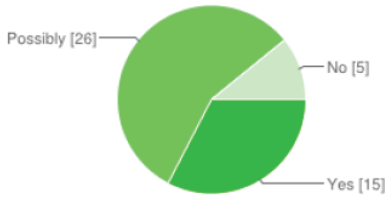
Cooperation on similar problems stimulates scientific and policy advances. Researchers from different institutions could be inspired in terms of research methods. It could then lead to exchange of knowledge in different health care systems. The comparison of successful health services organization and delivery could bring new solutions. Many respondents expressed their wish to participate to common projects with high profile researchers in France via perhaps visiting sessions and student exchanges. Their commitment would depend on the topics, the type of research the entity is carrying out, and of course the collaboration terms.

**Would you be interested - in your own name - in being associated/affiliated at some point?**




| | | |
|---|---|---|
| Yes | 23 | 50% |
| Possibly | 22 | 48% |
| No | 1 | 2% |

**Would you be interested - in you organisation's name - in being associated/affiliated at some point?**




| | | |
|---|---|---|
| Yes | 15 | 33% |
| Possibly | 26 | 57% |
| No | 5 | 11% |

23 respondents said they would be interested in participating in their own name and 15 said they would be interested in being associated at some point in their organization's name.

## Conclusion

Although rated difficult, the goal assigned to the new research entity, i.e. encouraging publishable policy-oriented research and contributing to more evidence-based decision-making, is not inaccessible, provided a number of strict conditions are fulfilled. Most respondents welcomed the fact that, by bridging the gap between health economists and decision-makers, academic research will have a greater impact on people's lives.

Respondents have offered multiple explanations for the gap (section 2), amongst which different timelines and poor data come out first, and have suggested concrete solutions at both system and individual level (section 3). They have offered a rich set of convergent recommendations, presented in section 4. The large consensus on most of the important issues has extended to their final recommendation, which is perseverance.

Three areas would, however, benefit from further investigation.

The first relates to the role of private partners. The consensus is to phase in their inclusion, but the actual nature of their involvement remains

controversial. It is likely to depend on local circumstances and on development prospects that cannot be anticipated at this early stage. But it is clearly a structural choice in the positioning of the entity and it will have to be addressed explicitly by its future governance.

The second area, which requires further investigation, is the potential of Knowledge Transfer and Exchange (KTE) in the field of health economics. Its systematic use would both benefit the choice of research topics and the shaping of stakeholders' interaction.

The third area opens up an even larger debate and relates to the use of incentives at both team and individual level, based on process or outcome indicators. Interestingly, economists, who have been the advocates of such change levers, are not necessarily convinced by their relevance, when it comes to their own work. The lack of agreement between respondents on the very need for incentives is reminiscent of the still lively debate opened up by Kreps[8] on the eviction of good will effects of financial incentives. The heterogeneity of preferences, related to the respective size of intrinsic versus extrinsic motivations at individual level, is clearly central to the question of whether incentives are needed or not. When it comes to defining outcome-based incentives, the question relates to the ability to prove causality between an academic recommendation and a policy decision. These two questions of preference heterogeneity and causality inference require further research and would benefit from an open discussion. Such could be the focus of the international entity launch seminar next autumn.

[8] Kreps, D. M. [1997], « Intrinsic Motivation and Extrinsic Incentives », *American Economic Review*, vol. 87, n° 2, p. 360.

# Appendix 1: Survey presentation

## Pilot Survey - Health Economics Institute, Paris

Hospitals of Paris (AP-HP) are setting up an **International Institute of Health Economics**, taking on board all interested researchers with innovative partnerships. A first step will be the launch in March 2014 of a joint **Paris School of Economics** (PSE) - **Hospitals of Paris** (AP-HP) chair on innovation in health care systems which will have a focus on hospital efficiency and equity of access.

Topics of interest will include **organisational changes** (information & incentive schemes, new production modes such as task delegation, teamwork, telemedicine, individual patient data management), as well as **economic assessment of new technologies** (drugs, procedures and medical devices).

The goal is to encourage **high quality policy-oriented research** (with academic publications in peer-reviewed journals) and to contribute towards **increasingly evidence-based decisions** (with clear incentives to reconcile research and decision making).

We are carrying out a feasibility study and we would like to draw on your experience in this respect.

Thank you for having accepted to answer to our questions. It should take no more than 20 minutes of your time. Please do not forget to click submit at the end of the questionnaire.

Kind regards,

**Lise Rochaix**
Full professor in Economics at Aix-Marseille University
**Raphaël Beaufret**
Project manager at AP-HP

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*Can you please fill in your name?*

*Can you please fill in your organisation (Institution/Unit/Department)?*

*Can you please fill in your e-mail?*

**1. How difficult do you think this dual goal of encouraging high quality policy-oriented research while contributing towards increasingly evidence-based decisions is to achieve? (1 to 4, from very easy to very difficult)**

**2. Have you personally tried to achieve such a goal in your organisation? (Y/N/NA)**

**If yes: What were, in your opinion:**

- **The three main obstacles?**
- **The three key success factors?**
- **The main research themes suited to the goal?**

**3. If you were to set up such an institute, which mechanisms (incentive schemes, organisation structure) would you define to:**

- **Ensure interaction between researchers and decision-makers?**
- **Guarantee cooperation between theoretical and applied economists?**
- **Foster dialogue between economics and medical sciences as well as other social sciences (sociology, philosophy)?**

**4. What is critical for a new institute to increase its international visibility?**

**5. How can the challenges (legal, practical, etc.) encountered in terms of access and use of data (administrative databases, medical records, etc.) be overcome?**

**6. Should private partners be taken on board?**

- **In financing**
- **In governance**
- **In training**
- **None of the above**

**Why?**

**7. What suggestions can you make for the management of conflicts of interest, both at the institute level and at researchers' level?**

**8. Regarding long term financing, what would be your best recommendation?**

**9. Association/Affiliation:**

- **What benefits would you personally expect from a collaboration and/or partnership with this institute?**
- **Would you be interested - in your own name - in being associated/affiliated at some point? (Y/Possibly/N) Comments**
- **Would you be interested - in you organisation's name - in being associated/affiliated at some point? (Y/Possibly/N) Comments**

**10. Would you agree to participate in a phone conversation in the next two weeks? (Y/N)**

- **If yes, please fill in the doodle below and give us your phone number in the box below (land line preferred).**

**Please don't forget to click on submit on next page to complete this questionnaire.**

**Thank you for your time and insights.**

**Do feel free to pass on this questionnaire to other people who you think could bring other insights.**

**Please don't forget to click on submit below to complete this questionnaire.**

## Appendix 2.1: Respondents names and affiliation

| | | | |
|---|---|---|---|
| John | Appleby | Kings Fund | UK |
| Jan-Erik | Askildsen | University of Bergen | NO |
| Simon | Burgess | CMPO, Bristol University | UK |
| Reinhardt | Busse | Technischen Universität Berlin | DE |
| Jim | Butler | ACERH, University of Queensland | AU |
| Stefano | Capri | LIUC University, Castellanza | IT |
| Terkel | Christiansen | Odense University | DK |
| Anthony | Culyer | University of York | UK |
| Patricia | Danzon | Wharton School | US |
| Bob | Elliott | HERU, Aberdeen University | UK |
| Randall P (Randy) | Ellis | Boston University | US |
| Martin | Gaynor | Carnegie Mellon University | US |
| Maria | Goddard | CHE, University of York | UK |
| Michel | Grignon | McMaster University | CA |
| Unto | Hakkinen | University of Kuopio | FI |
| Chris | Henshall | Brunel University | UK |
| Alberto | Holly | IEMS, HEC Lausanne | CH |
| Katharina | Janus | Columbia and Ulm Universities | DE |
| Andrew | Jones | York University, dept of economics | UK |
| Mathias | Kifmann | Hamburg University | DE |
| Audrey | Laporte | Universiy of Toronto | CA |
| Julian | Le Grand | London School of Economics | UK |
| Anne | Lemay | AQESSS | CA |
| Rosella | Levaggi | Univeristy of Brescia | IT |
| Maarten | Lindeboom | Erasmus Universiteit Rotterdam | NL |
| Guillermo | Lopez-Casasnovas | Pompeu Fabra University | ES |
| Carl-Hampus | Lyttkens | Lunds universitets | SE |
| Albert | Ma | Boston University | US |
| Giuliano | Masiero | University of Bergamo | IT |
| Jurgen | Maurer | IEMS HEC Lausanne | CH |
| Tom | McGuire | Harvard Medical School | US |
| Claude | Montmarquette | CIRANO, Montréal | CA |

| | | | |
|---|---|---|---|
| Joseph | Newhouse | Harvard Medical School | US |
| Charles | Normand | University of Dublin | IR |
| Fred | Paccaud | IUMSP, Lausanne | CH |
| Laura | Pellise | Pompeu Fabra University | ES |
| Pedro | Pita-Barros | Universidade nova de lisboa | PT |
| Joan | Rovira-Forns | University of Barcelona | ES |
| Laura | Sampietro-Colom | Hospital Clinic Barcelona | ES |
| Richard | Scheffler | School of public health, Berkeley | US |
| Erik | Schokkaert | Université de Louvain | BE |
| Ruth | Schwarzer | UMIT - University for Health Sciences | AT |
| Anthony | Scott | MonashUniversity Melbourne | AU |
| Mark | Sculpher | CHE, University of York | UK |
| Luigi | Siciliani | York University, Dept of economics | UK |
| Peter | Smith | Imperial College London | UK |
| Andrew | Street | CHE, University of York | UK |
| Sandy | Tubeuf | University of Leeds | UK |
| Eddy | Van Doorslaer | Erasmus Universiteit Rotterdam | NL |
| Siegfried | Walch | Management Center Insbruck | AT |

## Appendix 2.2: Respondents short biographies

**John Appleby**
As well as his post of Chief Economist at the King's Fund, John Appleby is a Visiting Professor at the Department of Economics, City University, London and at the Institute of Global Innovations at Imperial College London. John Appleby has worked in the NHS and acted as an advisor to the UK government and Parliament in various capacities. The focus of his research and commentary work at the King's Fund is on current health policy matters, in particular the economic issues associated with the government's reform agenda for health care such as the expansion of competitive forces into the NHS, patient choice, secondary care payment system and patient reported outcome measures.

**Jan-Erik Askildsen**
Pr Jan-Erik Askildsen is head of the department of economics at University of Bergen. He is a labour economist who has become interested in health economics. He increasingly takes part in governmental committees for advisory work for hospitals, which takes time off research but is very interesting. He is an expert on a task force developing rules for waiting list prioritization, based on cost-efficiency and medical conditions. He is also a member of a medical committee working on payments to encourage cooperation between hospitals from different regions and on how to allocate resources between hospitals. He coordinates work on the DRG system and how it affects access to health care. He is also a member of the EU research programme MUNRO, working on task delegation between health care professionals. The economics department at Bergen has also made 3 applications for Horizon 2020, one of which is on financing and HTA.

**Simon Burgess**
Simon Burgess is a professor of economics in the department of economics, University of Bristol. He is the director of the Centre for Market and Public Organisation (CMPO) and also the director of the Centre for Understanding Behaviour Change, CUBeC. Pr Burgess is also a Visiting Professor at LSE through CASE, and a research fellow at Centre for Economic Policy Research and Institute for the Study of Labor. He is a labour economist. His current research interests are in the economics of education, including market-based education reforms such as school performance tables, school accountability, choice and competition, admissions and unequal access to high-performing schools. He also works on ethnic segregation in schools, and the educational performance of minority students. Previously he has worked on the analysis of poverty and household income dynamics, incentives in organisations, and employment and unemployment dynamics, and a few other topics.

**Reinhardt Busse**
Reinhard Busse is professor and department head for health care management at Technische Universität Berlin. Besides being one the Observatory's Associate Head of Research Policy and Head of the Berlin hub, he is a member of several scientific advisory boards (e.g. for the Federal Association of Company-based Sickness Funds, the German Agency for Health Technology Assessment, and the Federal Physicians' Chamber) and a regular consultant for WHO, the EU Commission, OECD and other international organizations within Europe and beyond as well as national health and research institutions. His research focuses on both the methods and the contents of comparative health system analysis (with a particular emphasis on the reforms in Germany, other social health insurance countries and central and eastern Europe, role of EU), health services research including cost-effectiveness analyses, health targets, and health technology assessment (HTA).

**Jim Butler**
Jim Butler holds a Chair in health economics at The Australian National University and is foundation Director of the Australian Centre for Economic Research on Health. He has a PhD

in economics from the University of Queensland and over 30 years research and consulting experience in health economics. He has been a Wiener Fellow at Harvard University and Visiting Associate Professor at the University of Pennsylvania. His consulting experience includes projects for numerous public and private sector organisations in Australia and overseas, including the World Bank, AusAid, the Asia-Pacific Economic Cooperation (APEC) Business Advisory Council (ABAC), and the Office of Health Economics (London UK). He has also been a member of advisory boards for global pharmaceutical companies. His research interests include health insurance, health care financing, hospitals costs and health technology assessment/economic evaluation. Since 2009, he has been a member of the Australian Government's Medical Services Advisory Committee (MSAC) which advises the Minister for Health and Ageing on evidence relating to the safety, effectiveness and cost-effectiveness of new medical technologies and procedures. This advice informs Australian Government decisions about public funding of these services. He has also been Chair of MSAC's Evaluation Sub-Committee since 2009. Professor Butler was also recently appointed Chair of the Advisory Council on Intellectual Property (ACIP). This is an independent body appointed by the Australian Government that advises the Federal Minister for Industry - and his Parliamentary Secretary - on intellectual property matters. It also provides advice on the strategic administration of IP Australia, the Australian Government agency that administers intellectual property rights and legislation relating to patents, trademarks, designs and plant breeder's rights. The Council was established in 1994.

**Stefano Capri**
Prof. Stefano Capri is Senior Research Fellow on Economics at Cattaneo University-LIUC, Castellanza (VA), School of Economics and Management. He holds a position of adjunct professor of industrial economics; he also teaches Economics at the Faculty of Law. Since 2010 he is responsible for economic evaluation at Center for Health Technology Assessment, Institute of Public Health, Catholic University, Rome. He was educated at Bocconi University, Milan, (Economic and Social Disciplines), and at University of York, UK (Health Economics). He has been involved for many years in economic analysis of health care systems and economic evaluations of health care programmes and technology assessment for pharmaceutical companies and Public Authorities (Ministry of Health, Ministry of Economy, Regional Health Authorities). In 2009 he has been appointed as Member of the Healthcare Technology Assessment Committee of the Lombardy Region, responsible for providing regional guidance on drugs and medical devices. He also worked on developing the Italian guidelines for economic evaluations as recommended by the Italian Group of Pharmacoeconomic Studies and by AIES (Italian Association of Health Economics). Stefano is author of about 110 scientific publications and 8 books.

**Terkel Christiansen**
Terkel Christiansen is professor of health economics at University of Southern Denmark, and he has for more than a decade been the leader of the Health Economics Research Unit at this university. His was among the first to teach health economics in Denmark in the 1970s, and he was co-founder of NHESG, the Nordic Health Economists' Study Group. In his research he has been internationally oriented and taken part in several EU funded projects as well as other projects based on international collaboration. He has served on several advisory boards to the Ministry of Health or National Board of Health. In 2007 he was the local host of iHEA's 6th World Congress in Copenhagen.

**Tony Culyer**
Tony Culyer, CBE, BA, Hon DEcon, Hon FRCP, FRSA, FMedSci, is a professor in the Department of Economics & Related Studies who has spent his career since 1969 at York. He is also the Ontario Research Chair in Health Policy & System Design at the Institute of Health Policy, Management and Evaluation (IHPME), University of Toronto. He works mainly in the Centre for Health Economics. Previously at York, Tony was Head of Department from 1986 to 2001 and

Pro- and then Vice-Chancellor between 1991 and 1997. He was the founding co-editor, with Joe Newhouse, of the Journal of Health Economics and he was the founding Organiser of the Health Economists' Study Group. Between 2003 and 2006 Tony was the Chief Scientist at the Institute for Work and Health in Toronto. Tony was the founding Vice Chair of the National Institute for Health and Clinical Excellence (NICE) and he still chairs NICE International. He also chairs the Office of Health Economics in London. His current research interests relate to problems in thinking about how equity in health is best achieved and how decisions about cost-effective technologies are best arrived at.

**Patricia Danzon**
Patricia Danzon is the Celia Moh Professor at The Wharton School, University of Pennsylvania. She is an internationally recognized expert in the fields of economics of health care, the biopharmaceutical industry, and insurance. She is a member of the Institute of Medicine and the National Academy of Social Insurance, and a Research Associate at the National Bureau of Economic Research. She has served as a consultant to many governmental agencies, NGOs and private corporations in the US and internationally. Professor Danzon has served on the Board of Directors of Medarex, Inc., the Policy and Global Affairs Board of the National Academy of Sciences, and the Policy Board of the Office of Health Economics in London.

**Bob Elliott**
Bob is Professor in the Health Economics Research Unit and Department of Economics at the University of Aberdeen. He joined HERU as Director in December 2001, a post he held until September 2012. He is a Fellow of the Royal Society of Edinburgh and from 2007 has been a Commissioner on the Low Pay Commission which sets the UK minimum wage. He has held visiting positions at several universities in the USA, Europe and Australia and has acted as consultant and adviser to the Police Federation, HM Treasury, the EC and OECD. He co-ordinates the EC Framework 7 research project MUNROS - Health Care Reform: The iMpact on practice, oUtcomes and costs of New roles for health pROfeSsionals. He is conducting research into potentially preventable hospitalisation in conjunction with researchers in Aberdeen and the Sax Institute in Australia and into health workforce with researchers at the Melbourne Institute, Australia. He is course co-ordinator on 'The Economics of the Health Workforce' module on the MSc in Economics of Health run by HERU.

**Randall P (Randy) Ellis**
Randall P. Ellis, Ph.D., is a professor in the Department of Economics at Boston University, where he has been on the faculty since 1981. He earned his Ph.D. in economics from MIT after attending Yale University and the London School of Economics and Political Science. For 30 years his research has focused on health economics, spanning both US and international economics topics, and including the economics of health in developing countries. Dr. Ellis is Past President of the American Society of Health Economists and an associate editor of the Journal of Health Economics. An entrepreneur, he co-founded DxCG, Inc. in 1996 (now part of Verisk Health, Inc.), a healthcare information and consulting firm, in which he currently has no economic interest. Dr. Ellis has written and coauthored over 100 articles, reports and papers. Many have focused on risk adjustment, but others explore provider response to reimbursement systems; optimal insurance; health plan competition; the economics of mental health; health demand modeling in developing countries; and the cost-effectiveness of cancer screening. His recent research funding has been from the Australian Research Council, Verisk Health, and The Commonwealth Fund.

**Martin Gaynor**
Martin Gaynor, PhD, is the E.J. Barone Professor of Economics and Health Policy in the H. John Heinz III College and the Department of Economics at Carnegie Mellon University. He is also chair of the Governing Board of the Health Care Cost Institute (HCCI), an independent non profit dedicated to advancing knowledge about the determinants of U.S. health care costs.

His other affiliations are research associate of the National Bureau of Economic Research and international research fellow of the Centre for Market and Public Organisation at the University of Bristol. He is a member of the Economics Reference Group of the Cooperation and Competition Panel in the United Kingdom, advising the British National Health Service on competition issues. Professor Gaynor's research focuses on the economics of health care markets and health care organizations, particularly competition and antitrust in health care markets and provider compensation and incentives in health care organizations. This work has been published widely in scientific journals, including the Journal of Political Economy, American Economic Review, Rand Journal of Economics, Journal of Industrial Economics and the Journal of Health Economics.

**Maria Goddard**
Maria Goddard is Professor of Health Economics and Director of the Centre for health economics, University of York. Her current research interests in health policy include the measurement of performance, commissioning, mental health, the role of incentives and the regulation and financing of health care systems. Policy experience has been gained through working in the NHS at health authority level and then as an Economic Adviser in the NHS Executive (Department of Health) for three years. At the NHS Executive, she was involved in the economic aspects of purchasing, commissioning, planning and regulation. Maria has recently been appointed as a Non-Executive Director to the Board of the Health and Social Care Information Centre (HSCIC). She was elected as a Fellow of The Learned Society of Wales in their inaugural election, and has previously been an elected member of the Women's Committee of the Royal Economic Society. She is a member of the National Institute for Health Research (NIHR) Clinical Scientist Award Panel and has been a member of numerous research award and funding panels in the UK and overseas. She has acted as an adviser and consultant to the OECD, World Bank, World Health Organization and the Audit Commission. She is an Associate Editor for the Journal of Health Services Research and Policy and for BMC Health Services Research. She is a member of University of York's Equality and Diversity Committee.

**Michel Grignon**
Michel Grignon, who was named director of CHEPA on Sept. 1, 2011, is an associate professor in the Department of Economics and the Department of Health, Aging and Society at McMaster University. He is editor-in-chief of the journal *Health Reform Observer – Observatoire des Réformes de Santé* and is also an adjunct scientist at the Institute for Health Economics in Paris, France. Before joining McMaster in July 2004, he worked at the Institut de Recherche, d'Etudes et de Documentation en Economie de la Santé (IRDES) in Paris. He was born in France, and obtained his Master's Equivalent at the National School for Statistics and Economics in Paris, and his PhD at Ecole de Hautes Etudes en Sciences Sociales, also in Paris. Grignon has extensive experience at an international level in research projects and activities in the areas of health economics, health-related policies, health insurance and aging. His current research projects cover a broad range of topics, including how an aging society impacts health care expenditures in Canada and in France. He is also involved in research examining inequities in health care utilization and health policy in Canada, as well as exploring equity and efficiency by using experimental economic methods for financing health care.

**Unto Hakkinen**
Unto Häkkinen is a research professor Centre for Health Economics at THL, Finland. He earns a M.Sc from the University of York and a PhD from the University of Kuopio. His research focuses on Hospitals. He is involved in several projects such as EuroHope (European Healthcare Outcomes, Performance and Efficiency).

**Chris Henshall**
Dr Chris Henshall is an Honorary Professor at Health Economics Research Group (HERG). Chris has held various academic and senior management positions within the health research system and the higher education system within the UK. After securing a PhD in developmental psychology at the University of Cambridge in 1981 he held various academic posts. In 1988 he became a Principal Scientific Officer at the Medical Research Council. He joined the R&D Division of the Department of Health, and from 1996 – 2001 was Deputy Director of R&D. From 2001-4 he was Director of the Science and Engineering Base Group in the Office of Science and Technology and from 2005-10 he was Pro Vice Chancellor for External Relations at the University of York. From 2003-5 he was also Founding President of Health Technology Assessment international (HTAi). Chris is now drawing on this wealth of experience in his current role as an independent consultant on health, research and innovation policy. From various positions he has over many years encouraged, supported and contributed to the stream of work at HERG on assessing the Payback from health research, and his involvement has been enhanced through his appointment as an Honorary Professor at HERG.

**Alberto Holly**
Dr Alberto Holly is Professor Emeritus at the University of Lausanne, Faculty of Business and Economics (HEC Lausanne), Switzerland. He is Visiting Professor, Institute of Health Economics and Management (« Institut d'économie et management de la santé » (IEMS)), University of Lausanne and Visiting Professor, Faculty of Economics, Universidade Nova de Lisboa (FEUNL), Portugal. He is the founder and former director of the Institute of IEMS (1998 - 2009).

**Katharina Janus**
Katharina Janus, PhD, MBA, is Professor of Healthcare Management at Ulm University, Germany, and the Director of the Center for Healthcare Management, an international research center. She also heads the "Care-Tank", a global think-tank and platform for innovation, and holds an appointment at Columbia University's department of health policy and management, New York, USA. Prof. Janus focuses her research on the design and implementation of monetary and non-monetary incentive systems in healthcare organizations as well as on the assessment of innovative medical/management interventions and their impact on performance in various healthcare systems and organizations. As a healthcare manager in research and practice she puts a strong emphasis on managing the human side of healthcare delivery in the new age of care management – formerly known as "managed care." She has been the principal investigator of several international studies on physician motivation and professional culture in collaboration with the Hannover Medical School, the University of California at Berkeley and Stanford University, USA. She also serves as a member of the board of Allianz private health insurance, Munich, Germany. Born in Eutin (Northern Germany) in 1975, Dr. Janus earned her Master's Degree in Business Administration at the Universities of Hamburg and the Université Panthéon-Sorbonne Paris in 2000. She holds a PhD in Business and Social Sciences from Helmut-Schmidt-University in Hamburg (2003). Dr. Janus was a 2006-07 Harkness Fellow in Health Care Policy at The Commonwealth Fund and a Rockefeller Foundation academic fellow (2012). She will be a Brocher Foundation resident in 2014.

**Andrew Jones**
Professor Andrew Jones, PhD (York) has been Head of the Department of Economics and Related Studies since January 2011. Between 1994 and 2011 he was responsible for the Graduate Programme in Health Economics with more than 500 graduates from 70 different countries. He has supervised 23 PhD students. Andrew researches in the areas of micro econometrics and health economics with particular interests in the determinants of health, the economics of addiction and socioeconomic inequalities in health and health care. Andrew is joint editor of the Wiley-Blackwell journal Health Economics. He edited the Elgar Companion to Health Economics (published in 2006 with a second edition in 2012). He has a

particular interest in developing and disseminating the use of applied econometrics in health economics. In 1992 he established the European Workshops on Econometrics and Health Economics. Andrew is the Research Director of the Health, Econometrics and Data Group (HEDG) which has been funded by an ESRC large grant. He has been elected to the executive board of the International Health Economics Association (iHEA) and is co-chair of their Arrow Award committee.

**Mathias Kifmann**
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Anne Lemay is director for quality at the federation of hospitals and social care institutions (AQESSS) in Montreal. She has a Ph.D in economics and has been deputy director of the largest hospital in Montreal for a few years (CHUM). She is currently in charge of a large project aiming at defining and using efficiency indicators for AQESSS affiliates.

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Rosella Levaggi has a chair in Public Economics at the Faculty of Economics, University of Brescia. She is also teaching Health Economics and Policy at the University of Lugano (Switzerland). She has been awarded a D. Phil in Economics by the University of York (U.K.) and before entering the academic profession in Italy she has been working for five years as Research Fellow at the Institute of Research in Social Sciences of the University of York. She is author of several publications in national and international journals in the area of public economics, health economics and fiscal federalism. She is member of national and

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Claude Montmarquette is president, chief executive officer, and vice-president of Public Policy at the *Centre interuniversitaire de recherché en analyse des organisations* (CIRANO). He is an elected fellow of the Royal Society of Canada and professor emeritus of Economics and holder of the *Bell-Caisse de dépôt et placement du Québec* chair in Experimental Economics at the Université de Montréal. A global leader and innovator in the fields of experimental economics and applied econometrics, Professor Montmarquette's research focus is the application of experimental economics to questions of economic policy as it relates to education and health. For many years, Professor Montmarquette was a visiting professor at the Université de Paris 1 and the Université de Lyon. He has also lectured at France's Université de Clermont-Ferrand and Université de Montpellier and at Morocco's Université Hassan II. The author or editor of eight books and over 70 scientific articles, the results of his work have had significant impacts on the development of public policy both at home and abroad. Over the course of his career, Professor Montmarquette has chaired several committees for the Government of Quebec, and served on many others, both nationally and internationally. He was named a member of the Order of Canada in 2012 and voted a Great Montrealer in 2010.

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Fred Paccaud is, since 1988, Head of the Institute for social and preventive medicine (IUMSP) in the University Hospital, and Professor of epidemiology and public health at Faculty of biology and medicine, both in Lausanne (Switzerland). He is Member of National Research Council of the Swiss National Science Foundation, Division of biomedical sciences. He is also currently Associate professor at the Faculty of medicine of both the University of Montreal and the University McGill. His previous positions include: Head of the Research Center at Charles leMoyne Hospital (University of Sherbrooke) and Vice-Rector of the University of Lausanne. Fred Paccaud is a board-certified specialist in public health (FMH "Prevention and Public Health"), after a postgraduate training in public health in London and in Brussels. He has been active in various fields of public health, including cardiovascular disease (especially in countries in epidemiological transition) and health services research (information systems for management). The activities at IUMSP are funded by the local partners, but also by the Swiss National Science Foundation, the Swiss Federal Office of Public Health, the Swiss Co-operation Agency, World Health Organisation, UNAIDS, the World Bank, the National Institute of Health.

**Laura Pellisé**
Laura Pellisé is currently a senior research fellow at the Centre for research in economics and health (CRES) at the Universitat Pompeu Fabra. She has recently been appointed independent expert for the Horizon 2020 SME instrument by the European Commission. Laura joined the CRES (UPF) in 2012 and, until very recently, has been its Director, with responsibilities on the research, development and management areas. The CRES was created in 1996 by Prof. Guillem López-Casasnovas, past-President of the International Health Economics Association, and Prof. Vicente Ortún, Dean of the Faculty of Economics and Management of the Universitat Pompeu Fabra, with the aim of undertaking research, teaching as well as advisory projects in the field of Economics and Health. She was previously managing director of the Vall D'Hebron Institute of Oncology of Barcelona, the leading centre for translational research in Oncology in Spain, were teams of researchers from both basic and clinical research fields would work together bridging bench and bedside needs. She had previously covered for almost a decade top managing positions at the USP private nationwide group of hospitals in Barcelona. She holds also some experience in the political decision making arena in Madrid, where she was technical director of studies at the Spanish Ministry of Health. Laura holds a PhD in Economics from the Universitat Pompeu Fabra (1996), a Master of Science in Health Policy and Management from Harvard University (1992), Boston, and attended the Program in General Management at the IESE Business School (2006), Barcelona.

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Pedro Pita Barros is Professor of Economics at Universidade Nova de Lisboa where he teaches industrial organization and health economics. He is also a research fellow at the Centre for Economic Policy Research (London). Pedro Pita Barros' research focuses on issues on health economics and on regulation and competition policy. His work has covered different topics including: health expenditure determinants, waiting lists, bargaining in health care, competition policy in Portugal and in the European Union, among others. His research has appeared in many academic journals (such as the Journal of Health Economics, Health Economics, Economic Journal, European Economic Review, Journal of Industrial Economics, Journal of Economics and Management Strategy, International Journal of Health Care Finance and Economics, Health Care Management Science, among others). Pedro Pita Barros is currently Editor of the International Journal of Health Care Finance and Economics and Associate Editor of Journal of Health Economics, Health Economics, and Health Care Management Science. He has served as Member of the Board of the Portuguese Energy Regulator (2005/2006) and on the Governmental Commission for the Financial Sustainability of the National Health Service (2006/2007). Over time he has acted as consultant for both private and public entities, in Portugal and at the European level, in the areas of health economics, competition policy and economic regulation.

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**Richard Scheffler**
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**Erik Schokkaert**
Erik Schokkaert is professor in economics at the University of Leuven. He has had personal experience with pursuing this dual goal. But in Belgium, there are no University centres that explicitly try to do so, particularly in the area of hospitals. KCE is the only institution in health care that attempts to do so. It is a government-sponsored institution that manages to produce guidelines and to publish in good economic journals.

**Ruth Schwarzer**
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**Tony Scott**
Tony leads the Health Economics Research Program at the Melbourne Institute of Applied Economic and Social Research at the University of Melbourne, and jointly co-ordinates the University of Melbourne Health Economics Group. He has a PhD in Economics from the University of Aberdeen. Tony is a National Health and Medical Research Council (NHMRC) Principal Research Fellow. He is an Associate Editor of Journal of Health Economics and Health Economics. He leads the Centre of Research Excellence in Medical Workforce Dynamics. Funded by the NHMRC, the Centre runs a large nationally representative panel survey of physicians - Medicine in Australia: Balancing Employment and Life (MABEL). Tony's research interests focus on the behaviour of physicians, health workforce, incentives and performance, and primary care. Tony's research interests include the role of financial and other incentives in changing the behaviour and improving the performance of health care providers, with a focus on general practice and primary care and the labour markets of health care professionals. Tony is principal investigator on the Medicine in Australia: Balancing Employment of Life panel survey of 10,498 doctors, with Wave 4 due to go out in 2011. Funded by the NHMRC, this project focuses on labour supply and participation decisions by doctors, including mobility across geographical areas. De-identified data are available for others to use. He is also principal investigator on an NHMRC Partnerships Project grant: Measuring and explaining hospital performance. This is funded for 5 years with the Department of Health (Victoria) as a research partner.

**Mark Sculpher**
Mark Sculpher is Professor of Health Economics at the Centre for Health Economics, University of York, UK where he is Director of the Programme on Economic Evaluation and Health Technology Assessment. He is also Deputy Director of the Policy Research Unit in Economic Evaluation of Health and Care Interventions, a 5-year programme, run collaboratively with the University of Sheffield and funded by the UK Department of Health. Mark has worked in the field of economic evaluation and health technology assessment for over 25 years. He has researched in a range of clinical areas including heart disease, cancer, diagnostics and public health. He has also contributed to methods in the field, in particular relating to decision analytic modelling and techniques to handle uncertainty, heterogeneity and generalisability. He has over 200 peer-reviewed publications and is a co-author of two major text books in the area: Methods for the Economic Evaluation of Health Care Programmes (OUP, 2005 with Drummond, Torrance, O'Brien and Stoddart) and Decision Modelling for Health Economic Evaluation (OUP, 2006 with Briggs and Claxton). Mark has been a member of the National Institute for Health and Care Excellence (NICE) Technology Appraisal Committee and the NICE Public Health Interventions Advisory Committee. He currently sits on NICE's Diagnostics Advisory Committee. He chaired NICE's 2004 Task Group on methods guidance for economic evaluation and advised the Methods Working Party for the 2008 update of this guidance; he has also advised health systems internationally on HTA methods including those in France, Ireland, Germany, Portugal and New Zealand. He has been a member of the Commissioning Board for the UK NHS Health Technology Assessment Programme and the UK NIHR/Medical Research Council's Methodology Research Panel, and is currently a member of the UK Department of Health's Policy Research Programme's Commissioning Panel. He was President of the International Society of Pharmacoeconomics and Outcomes Research (ISPOR) (2011-12).

**Luigi Siciliani**
Luigi Siciliani holds a BSc in Economics (Bocconi University, Milan, Italy), and MSc in Economics from London School of Economics (1998) and PhD in Economics at University of York (2003). After working as an economist in the Health Policy Unit at the OECD in Paris for two years (2001-2003), he returned to York as a lecturer in 2003 where he is currently Professor in the Department of Economics and Related Studies. He is Director of the MSc program in Health Economics, and Co-Editor of the Journal of Health Economics (since 2008). He is an internal affiliate with the Centre for Health Economics, and member of the The Economics of Social and Health Care Research Unit, financed by the Department of Health. His main research interest is in health economics and in particular hospitals, with a focus on industrial organisation theory and applied micro-econometrics. Most of his research focuses on modeling purchaser-provider interactions in health care, including quality hospital competition, contract design, pay for performance, and, last but not least, waiting times for elective treatments. He enjoys developing applied theoretical studies, testing their predictions empirically (with large administrative or survey data), and engaging with and disseminating findings to policy makers. He Co-Edited the recent OECD book (2013): Waiting times policies in the health sector: what works?

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Peter C. Smith is Emeritus Professor of Health Policy at Imperial College London. He is a mathematics graduate from the University of Oxford, and started his academic career in the public health department at the University of Cambridge. His main research has been in the economics of health, and he was a previous Director of the Centre for Health Economics at the University of York. Peter has advised many governments and international agencies, including the World Health Organization, the International Monetary Fund, the Global Fund, the World Bank, the European Commission and the Organization for Economic Cooperation and Development.

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Andrew Street is a Professor of Health Economics and Director of the Health Policy team in the Centre for Health Economics and Director of the Economics of Social and Health Care Research Unit (ESHCRU), a joint collaboration with the Personal Social Services Research Unit (PSSRU) at the London School of Economics and the University of Kent. He is an editor of the Journal of Health Economics, and currently serves as a board member on the NIHR Health Services and Delivery Research programme Commissioning Board Researcher-led (since 2009) and the Norwegian HSR Board (since 2011), and as chair of the Welsh Health Economics Support Service Advisory Group. He is an external affiliate to the Department of Business and Economics at the University of Southern Denmark strategies.

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