International Journal of Technology Assessment in Health Care, **18:4** (2002), 771–781.

USING EVIDENCE IN THE DEVELOPMENT OF LOCAL HEALTH POLICIES

Some Evidence from the United Kingdom

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Abstract

Objectives: This paper explores the use of evidence, focusing on economic evidence in particular, in the development of local health policies through an in-depth study of Health Improvement Programmes (HImPs) in England.
Methods: A questionnaire was sent to the person responsible for coordinating the development of the HImP in each of the 102 English health authorities. In addition, semi-structured interviews were conducted with 10 HImP leaders, and a random sample of 26 HImP documents was reviewed using a standard *pro forma*.
Results: Of the 102 mail questionnaires sent out, 68 (67%) were returned. It was found that those developing HImPs had multiple objectives, only some of which (e.g., efficiency in healthcare provision) would necessarily require evidence. Where evidence was used, this was a mixture of internal (experiential) and external (empirical) evidence, with the balance (66%) being in favor of the latter. Government reports and guidance from the National Institute for Clinical Excellence (NICE), were the main sources of external evidence, rather than published papers. Key barriers to the use of economic evidence were lack of time and availability and the difficulties in synthesizing information at the local level.
Conclusions: Based on responses to our survey, the main ways of increasing the use of evidence in the development of local health policies in England are to produce more evidence-based national guidance and to produce accessible summaries of the available literature for local decision makers.

Keywords: Evidence, Decision making, Health technology assessment, Health policy

In many countries the investment in health services research and health technology assessment (HTA) is now quite extensive, and HTA agencies exist in a number of jurisdictions.

The authors thank the Department of Health for funding this study, although any errors are, of course, solely the responsibility of the authors. Also, the authors wish to thank all HImP leaders involved in the project, and in particular those individuals who participated in our telephone survey. Additionally, the authors thank the Department of Health-funded team at Centre for Health Economics, the University of York, including Diane Dawson, Maria Goddard, Russell Mannion, Helen Parkinson, and Pete Smith for their contributions to this report. The authors also thank Sally Bell-Syer, who helped in the extraction of information from the 26 HImPs, as well as Sue Baughan, Bernard Crump, and Brian Ferguson for their useful feedback on the design of our postal survey.

While improvements could still be made to the range, quality, and timeliness of evidence on the effectiveness and cost-effectiveness of healthcare treatments and technologies, issues surrounding the *production* of evidence are largely understood.

In contrast, the *consumption* or use of evidence in healthcare decision making is much less understood and, in general, insufficient. Recently Dobbins et al. (2) examined the influence of five systematic reviews on public health decisions and explored which factors were associated with influencing those decisions. Based on public health decision makers' perceptions, it was found that the reviews had most influence on decisions relating to program planning and program justification, while the reviews were perceived to have least influence on program evaluation decisions. Such research is few and far between. A number of surveys of healthcare decision-makers indicate that the use of HTA evidence by healthcare decision makers is sparse (7). Several authors have discussed the barriers to the use of evidence and how they may be overcome (3;12).

Within Europe, the most extensive studies of the dissemination and use of HTA evidence have been carried out as part of the EUR-ASSESS project (6) and its successor, the ECHTA/ECAHI project (Henshall C, Koch P, et al. HTA in policy and practice: To identify and share successful approaches to link findings of assessments, and their contribution to health indicators, to healthcare decision making. ECHTA/ECAHI. June 2001, unpublished). The general conclusion is that the majority of research into dissemination and use of evidence has focused on clinical practitioners, and much less is known about the use of HTA in health policy development, particularly at the local level.

Indeed, Henshall et al. (unpublished) pointed out that much of the information required to explore the use of HTA information is not published in academic papers, but in "Federal registers and gazzettes, which are not part of the traditional academic databases such as Medline and Embase." They recommended that further in-depth research is required on the structure of European healthcare systems with respect to their decision-making anatomy in order to identify decision nodes where HTA can contribute relevant information.

This paper explores the use of evidence in the development of local health policies through an in-depth study of Health Improvement Programmes (HImPs) in the United Kingdom (more precisely, England). The concept of the HImP was introduced in a government white paper in 1997 (10) and was described as "an action programme led by the health authority to improve the health and healthcare locally" (19). There are three stated aims of the HImP: a) to provide a framework for health and social care through interagency collaboration; b) to produce action plans based on evidence to address local and national priorities; and c) to make a healthcare program that involved, and was accessible to, the public.

The HImP formed an excellent vehicle for the study of the use of evidence at the local level because its production was a statutory requirement for all health authorities and local plans were expected to be based on evidence. Additionally, given recent large-scale investments in health services research and development in the United Kingdom and the efforts to issue guidance to the National Health Service (NHS) through National Service Frameworks (NSFs) (9;10) and the National Institute for Clinical Excellence (NICE) (11), the environment for consideration of evidence in local policy development is currently extremely favorable.

METHODS

The study, which was funded by the Department of Health in England, considers the second phase of HImPs, which covers the period from 2000–03. There were three components to the research. First, a mail questionnaire was sent to the person responsible for coordinating the development of the HImP in each of the 102 health authorities in England. The background

of respondents varied, but the majority had a background in public health. The questionnaire (available from the authors) asked about the objectives of the HImP, the staff involved in its production, the sources and types of evidence used, and the barriers to the use of evidence. Additionally, examples of the use of evidence were sought, with a particular emphasis on economic evidence. Some questions addressed the production of the HImP as a whole, whereas some more specific ones addressed two program areas that had to be covered in all authorities' HImPs: cancer and coronary heart disease.

Second, a sample of 10 respondents, who indicated in the questionnaire that they would be willing to participate in a semi-structured telephone survey, were contacted. Respondents were chosen for interview either: a) because they raised interesting issues in their responses to the open-ended questions in the postal questionnaire; or b) because their responses raised issues about the use of economic evidence that we wished to explore. The interviews were used to obtain more detailed information on respondents' thoughts on the role of evidence in HImPs, to explore themes emerging from the preliminary analysis of the postal survey, and to follow-up any examples of interesting local initiatives in the use of evidence.

Third, a random sample of 26 (25%) of the written HImP documents were analyzed using a standard *pro forma* in order to assess the extent to which these recognized the role of evidence or cited examples of evidence that had been used. While this last component of the research provided some verification of the responses obtained from the mail questionnaire and interviews, this was only partial. The written HImP documents, which averaged around 100 pages long, were merely the summary of an extensive process. In order to verify the questionnaire responses fully, it would be necessary to review every background paper, every set of meeting minutes, and possibly even attend every meeting as an observer.

Throughout the study, an important distinction was made between two types of evidence: a) *internal (experiential) evidence*, based on professional opinion and tacit knowledge; and b) *external (empirical) evidence*, based on research from primary or secondary studies, published papers, or guidelines (1). In practice the distinction between internal and external evidence might merge because, for example, professional opinion might be based on published sources of evidence. However, this definition of evidence enabled us to assess the relative emphasis placed on different types of evidence and to identify the specific contribution of published sources (e.g., HTA agency reports).

RESULTS

Response to the Mail Questionnaire

Of the 102 mail questionnaires sent out, 68 were returned, giving a response rate of 67%. The response rate was relatively uniform by geographical area and was similar to that achieved in a number of other postal questionnaires sent to healthcare decision makers in the United Kingdom (5;8). The majority of respondents worked in public health departments and were medically trained. Others worked in a variety of departments (e.g., health promotion, planning, and corporate affairs) and were trained in a range of other disciplines (e.g., statistics, economics, operational research, management studies, and accountancy). Questionnaire results are provided below.

Although we have no details of the views of those that did not respond, it would be conservative to assume that nonrespondents are less optimistic about the use of evidence than those who did respond.

The Objectives of HImPs

It was important to explore respondents' perceptions on the objectives of HImPs, since these may condition their views on the value of various types of evidence. The responses are given in Figure 1.

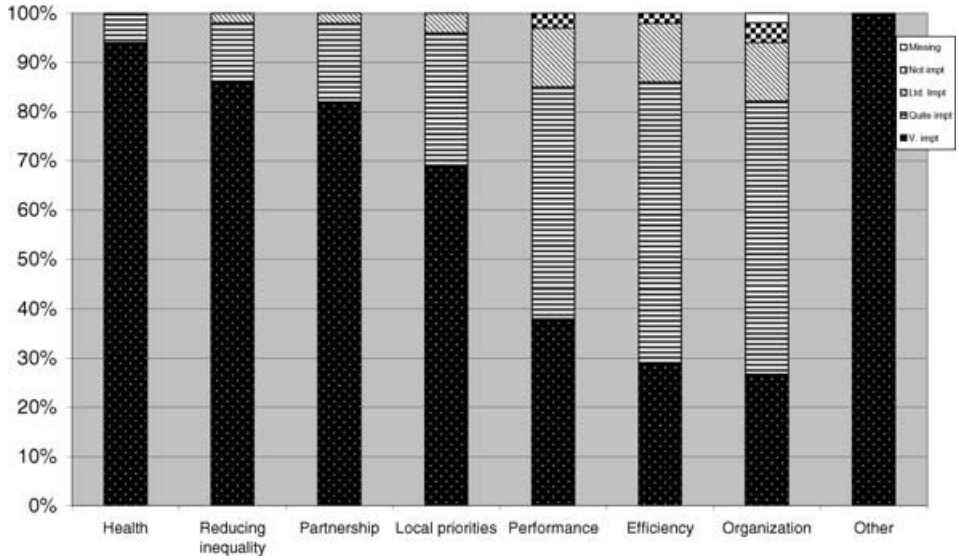

Figure 1. Objectives of HImPs.

It can be seen that the most important perceived objectives were to improve health, to reduce health inequality, and to encourage partnership in the provision of health care. By contrast, a focus on efficient provision of care was rated as somewhat less important. The high ratings of health improvement and reduction of health inequality are unsurprising. However, the high rating given to encouraging partnership emphasizes the point that decision makers often like to see an inclusive process for making decisions, which means that some individuals might have influence over decisions, whether they refer to evidence or not.

Balance of Internal and External Evidence

It was recognized at the outset that the decision-making process draws on a number of sources of information and not just published data. Figure 2 shows the balance of different types of evidence used in the development of HImPs. It can be seen that most respondents felt that a mixture of internal and external evidence was used, with the emphasis being on the use of external evidence. As with other responses, this answer could reflect what the respondents think they should be doing, rather than what they actually do. However, in response to a latter part of the questionnaire, some respondents did provide actual examples of the use of external evidence.

Sources of Evidence

The perceived importance of various sources of external evidence is given in Figure 3. The most striking finding is the high reliance placed on official government sources, such as NSF guidelines, government publications, and NICE guidance. This probably reflects both the perceived quality of the documents themselves and the fact that, within the English NHS, considerable emphasis is currently being placed on performance management; that is, health authorities have to ensure that various targets in health or healthcare provision are met. Many such targets are embodied in the national guidance, for example, the NSF on coronary heart disease (CHD) (10).

In addition, it can be seen that various traditional published sources of evidence were considered to be of some importance, although not as important as the government guidance. Of the published sources, the secondary sources (i.e., publications giving easily accessible

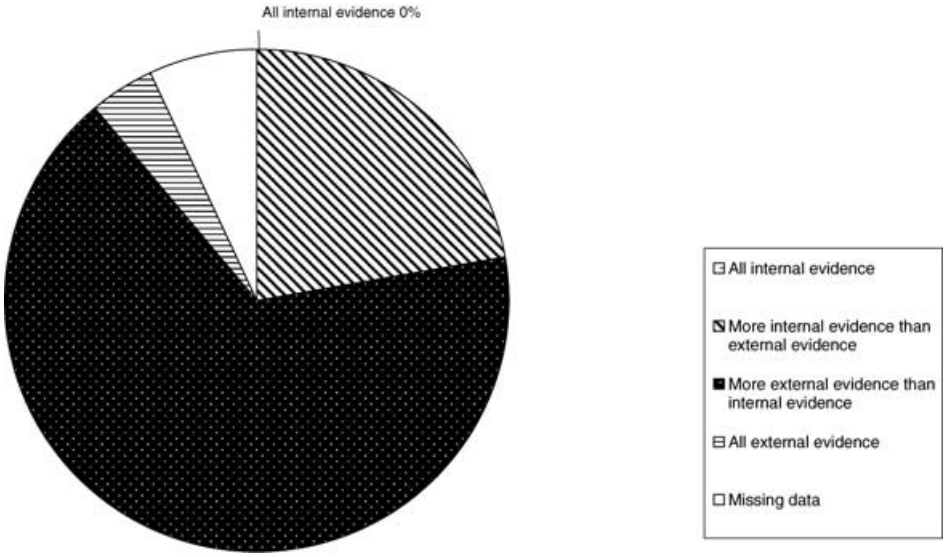

Figure 2. Balance of internal evidence and external evidence.

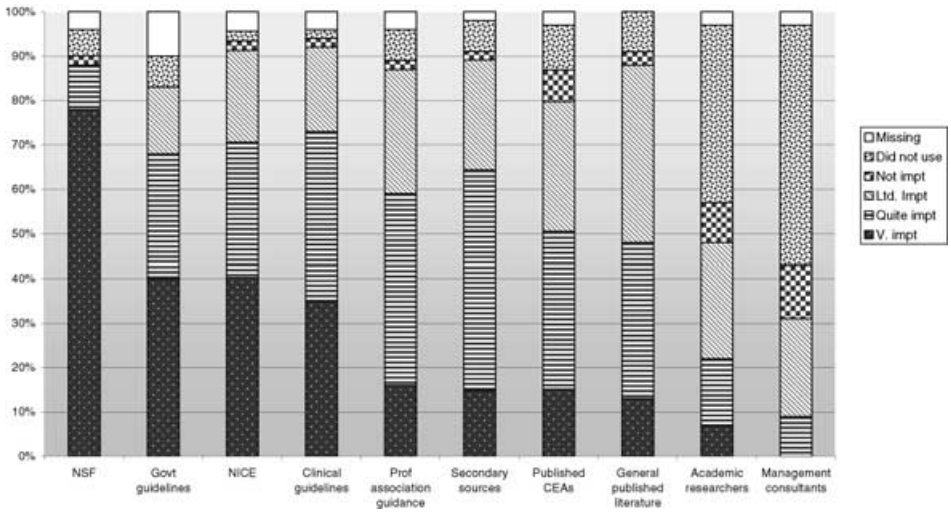

Figure 3. Sources of external evidence.

summaries of the relevant literature) were ranked the highest. Finally, it can be seen that specially commissioned work, from academic researchers or management consultants, was not considered very important. This might reflect the lack of time or money available to commission such research at the local level.

Figure 4 gives details of the perceived importance of various sources of internal evidence. Clinical opinion was thought be the most important source of internal evidence, and it is therefore important that their opinions be as evidence based as possible.

Role and Use of Economic Evidence

Several previous surveys have suggested that the use of economic evidence in health-care decision making presents a particular challenge, either because decision makers do not understand it or are uncomfortable about embracing the cost-effectiveness criterion

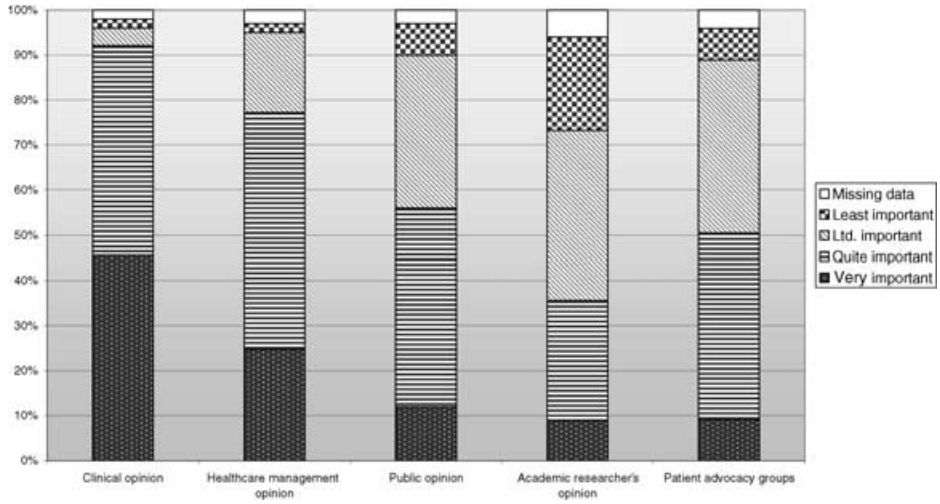

Figure 4. Sources of internal evidence.

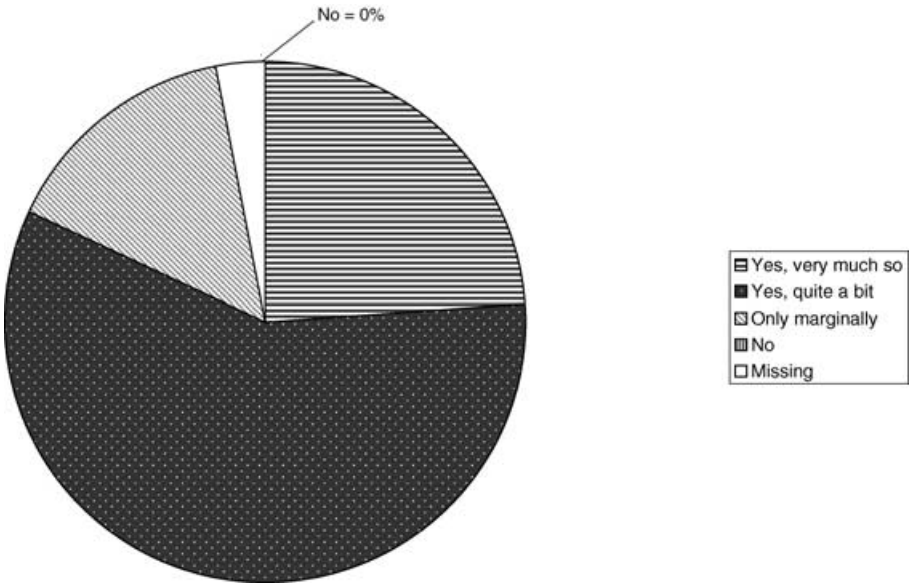

Figure 5. Should economic evidence influence the design of HImPs?

(4;7). Therefore, some of the survey questions focused on the use of economic evidence in particular.

Figure 5 shows that, at least for this group of respondents, economic evidence was considered highly relevant. Indeed, there was a widespread understanding that economics was not about cutting costs but about maximizing the benefits in improved health from the resources available. For those respondents who felt that economic evidence was only marginally relevant, the main concerns were practical ones, rather than issues of principle (for example, lack of access to economic expertise at the local level).

Figure 6 indicates the relative usefulness of various types of economic evidence. The results confirm the importance, as perceived by local decision makers, of secondary sources (e.g., reviews) and advice from government bodies such as NICE. The importance of

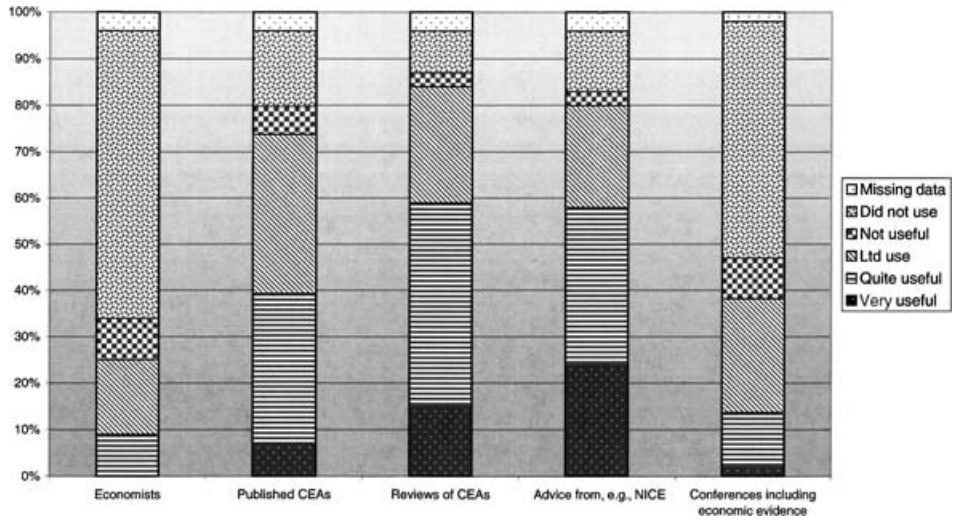

Figure 6. Use of economic evidence.

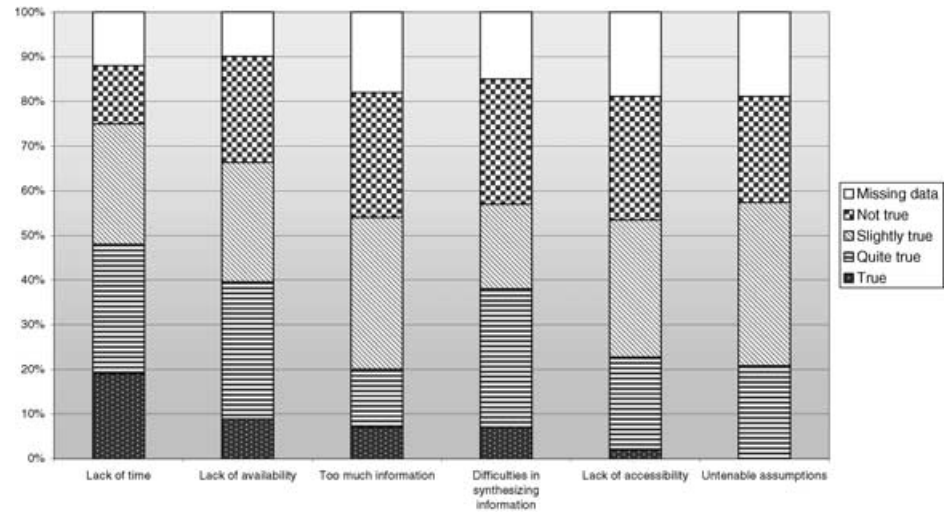

Figure 7. Barriers to use of economic evidence.

discussion and advice from economists was not ranked very highly, perhaps because few health authorities had access to such advice.

Barriers to the Use of Evidence

Respondents were asked to identify the main barriers to the use of evidence (both internal and external) in the design of their HImP. Figure 7 reveals no clear prominence of one reason over another, although only 13% of respondents felt that they had enough time to look for the relevant evidence.

Additional Insights from the Telephone Interviews

The telephone interviews confirmed many of the findings of the main questionnaire, in particular the extensive reliance placed on national guidance, such as that contained in the NSFs. One important factor was the lack of time and other resources at the local level to

gather and interpret evidence. This meant that evidence was often used in a reactive way to support current policies, rather than in a proactive way to help develop new policies.

The other main insight from the telephone interviews was that most respondents interpreted the role of the HImP very broadly. This had two implications for the use of evidence. First, respondents interpreted the definition of health improving measures to include socioeconomic determinants as well as purely medical ones. However, there was a dearth of evidence about these broader determinants and associated interventions, except in areas such as smoking cessation programs. Second, the role of the HImP was considered to include developing partnerships with other agencies and the involvement of the general public. These objectives could be achieved without the use of evidence *per se*.

Main Findings from the Review of HImP Documents

The review of HImP documents showed that, apart from the three program areas that had to be included (cancer, CHD, and mental health), an average number of nine other programs or areas were featured in HImPs. These included areas such as services for children and young people, drugs and substance misuse, services for people with learning and physical difficulties, and accidents.

There was quite extensive reference to national guidance in the documents, in line with the findings of the mail questionnaire and telephone interviews. For example, 92% of the HImP documents reviewed for the use of CHD evidence referred to the NSF on CHD. Beyond this there was only occasional reference to the use of other types of external evidence, although, as was pointed out earlier, this is more likely to be found in supporting documents than the HImP itself.

Around two-thirds of HImP documents referred to economic considerations in their introduction, although only 2 of the 26 HImPs reviewed mentioned cost-effectiveness explicitly. Only one HImP in the sample mentioned any specific cost-effectiveness evidence.

DISCUSSION

The aim of this research was to investigate the role of evidence, particularly economic evidence, in the development of local health policies. It has been recognized that, at the time of the study, HImPs were only in their second year. Also, it must be recognized that surveys have inherent weaknesses, in that respondents may give the answers they feel they should give, rather than answers reflecting reality. Therefore, an analysis of HImP documents was also undertaken. Bearing this in mind, the main themes emerging from the research were as follows:

1. *Local health policies are seen as having multiple objectives.* Whereas the improvement of the health of the population is viewed as the prime objective of HImPs, other important objectives are to reduce health inequalities and to develop partnerships. For many local policy makers, the *process* of developing HImPs was as important as the outcome, particularly since HImPs are in their infancy. Therefore, we might expect to see a trend toward more measurable targets and the more explicit use of evidence in the future.

   Many respondents, particularly those from a public health background, saw the process of developing HImPs as a way of stressing the broader socioeconomic determinants of health, as opposed to the "medical model" of health and health care. However, some of their efforts to stress broader socioeconomic interventions to improve health were thwarted by the relative lack of evidence on costs and effects of such interventions.
2. *The notion of evidence is interpreted broadly.* It is clear from the research that traditional notions of evidence, namely data drawn from classical research studies and published in the literature, do not encompass the range of inputs to the design of an HImP. Many of the inputs relate to national

guidance and local professional opinion, which in turn might be based on data from research studies. Therefore, it is important to have a broad definition of what constitutes evidence. The distinction used here, between internal and external evidence, proved useful in exploring respondents' views on the use of evidence in developing HImPs.

3. *Basic concepts of economics are well understood if not always applied.* Most respondents were clear as to the basic principles of economics and the need to make choices when faced with a budget constraint. However, the level of access to economic analyses and economics expertise was low. Therefore, even where economic studies did exist, it was not clear how they could be interpreted and used. More importantly, given the various constraints operating locally, most respondents found it difficult to operationalize economic concepts in decision making, even if they wished to do so.
4. *Local constraints greatly influence the development of policies.* Most respondents commented on the speed at which their HImP had to be developed and that time limitations precluded extensive searches for evidence. In addition, several key resources were not available, or in a limited supply, at the local level. This made it impossible to search for, synthesize, and interpret evidence, particularly economic evidence. Economic evidence had the additional problem that it might not transfer easily from one setting to another, in contrast to evidence on the effectiveness of interventions. Therefore, it needed extra interpretation in light of the local context.

   Political acceptability is also an important criterion in judging healthcare interventions at the local level. Therefore, external evidence is often merged with local professional and public opinion when deciding upon priorities, since the evidence will be discussed locally prior to reaching a decision.
5. *National guidance is very influential in the design of local health policies.* It was clear from the responses that most health authorities took very seriously the guidance embodied in the NSFs and (more recently) pronouncements from NICE. Respondents assumed that the evidence base of such guidance was sound, although the guidance itself may not always have high relevance, given local circumstances. In particular, health authorities wanted more advice on how to implement NICE guidance locally.

   Given the constraints, in time and expertise at the local level, central initiatives are therefore critical to the local policy process. These include not only the issuing of guidance through NICE and the NSFs, but also initiatives in the generation, synthesis, and dissemination of evidence through the Health Technology Assessment (HTA) Programme, the Cochrane Collaboration, and bodies such as the NHS Centre for Reviews and Dissemination.

CONCLUSIONS

Based on responses to our survey, the main ways of increasing the use of evidence in the development of local health policies in England are to produce more evidence-based national guidance and to produce accessible summaries of the available literature for local decision makers.

POLICY IMPLICATIONS

The results of this research suggest a number of policy initiatives. Some are already underway in the U.K. National Health Service, others could be considered. Some of the suggestions may also be relevant in other national health services where local authorities have autonomy, but where there is considerable guidance from the Ministry of Health.

First, the evidence base of national guidance should be maintained, if not strengthened, while at the same time leaving scope for local interpretation. Given local constraints on time and resources, those developing local policies are only too willing to embrace national guidance. Therefore, this represents the major vehicle for improving the evidence base of local decisions. It is important, therefore, that the evidence base of national guidance remains strong and that it embraces some economics principles.

Second, efforts should continue to generate, synthesize, and disseminate evidence on a national level. Only on rare occasions will there be opportunities to undertake a comprehensive review of the evidence at the local level. Therefore, in the United Kingdom the considerable efforts already made to generate, synthesize, and disseminate evidence through the NHS R&D Programme are critical to improving the evidence base of local decisions. Those developing local policies were particularly appreciative of readily accessible reviews of cost-effectiveness evidence and were less likely to consult academic journals containing the original studies.

The synthesis and dissemination of economic evidence presents some particular challenges, since local factors might influence whether a particular intervention is cost effective. Thus, the interpretation of economic evidence from another setting can pose difficulties. Therefore, more effort should be placed on understanding how local factors influence cost-effectiveness and the ways in which local decision makers can better interpret economic study results in their own circumstances.

Third, quantifiable targets (for health improvement) and the role of evidence in priority setting and target setting need to be stressed. Many respondents acknowledged that, as the learning curve in producing local health policies was climbed, there would be less emphasis on process issues and more on outcomes. They also felt that evidence would be used more explicitly. The policies differed greatly in terms of their emphasis on quantifiable targets and mechanisms to consider evidence in a formalized manner. Some of the more promising local initiatives, such as the use of *pro formas* or cost-benefit matrices, should be studied further to ascertain whether they could be more widely adopted.

Fourth, the local role in assembling evidence needs to be clearly defined and adequately resourced. While most of the teams developing local health policies relied on national guidance, such guidance clearly needs to be interpreted in the light of local circumstances. Therefore, a clearer specification is required of the local demographic, epidemiologic, and financial information necessary to produce local policies, along with guidance on how this information can be accessed. However, the responses to the questions about resources indicated some were in short supply, in particular economics expertise.

Fifth, efforts to educate healthcare professionals in evidence-based medicine and economics should be maintained or strengthened. It was clear from the surveys that local professional opinion, especially clinical opinion, is central to the production of local health policies and the development of priorities. This emphasis will remain, even if the efforts outlined above—to strengthen the evidence base of national guidance and to disseminate evidence—are made. Therefore, it is important that, through educational programs, clinicians have an adequate appreciation of the principles of evidence-based medicine and economics. This will maximize the possibility that their opinions, when given, will embody these principles.

Sixth, more research should be undertaken into the cost-effectiveness of broader socioeconomic interventions to improve health. Several respondents talked about the tension between the socioeconomic and medical models of health and the fact that, in assigning priorities, medical interventions had precedence due to their superior evidence base. Therefore, more attention should be placed on evaluating some of the broader interagency interventions that were identified as part of the process of developing local health policies.

Finally, the impact of broader organizational changes on the development of local health policies needs to be recognized. In the United Kingdom the current health authorities will soon cease to exist. Instead, new strategic health authorities will be created, covering much larger populations. In parallel with this, the primary care trusts (PCTs) will play a much greater role in the development of local health policies and priorities.

The major issue raised by these organizational changes, in relation to this study, is whether PCTs will have the level of resource and expertise to gather, synthesize, and interpret evidence. In particular, they may not have very extensive skills in public health or

economics. This study showed that such resources were often in limited supply, or absent, in health authorities.

As the details of the current organization changes are finalized, some of these issues will need to be addressed. In the meantime, however, PCTs are likely to be even more reliant on the national guidance than were the health authorities in our survey. This suggests that many of the policy implications identified above have even more relevance, given the organizational changes that are about to take place.

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