Deliberative methods for combining different types of evidence in the development of policy recommendations

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Overview

• Session theme: “Deliberating to inform decision-making”

• Presentation title: “Deliberative methods for combining different types of evidence in the development of policy recommendations”
  – Key concepts
  – Systematic review

– Prescribed aim: “By the end of your presentation, the participants should be able to better understand how deliberative processes can be used to combine different forms of evidence”
‘Deliberating’ and ‘deliberative methods’

Julia Abelson’s work
CHSRF definition
Casting a wide net
Deliberative process

A deliberative process is a tool for producing guidance based on heterogeneous evidence. It is a participatory process that includes representation from experts and stakeholders, face-to-face interaction, criteria for the sources of scientific evidence and their weight, and a mechanism for eliciting colloquial evidence while making it subsidiary to the science.
‘Informing decision-making’ and ‘developing policy recommendations’

What types of decisions/policies?
What types of decision-making processes/contexts?
What is the aim – better decisions vs. better outcomes?
Differences in how context affects evidence utilization highlight the complex nature of health policy decisions. Taking into consideration the findings of Banta et al. (2001) and Taylor (2002) cited in the introduction, we believe the central challenge is not to develop international evidence for evidence-based policy, but rather to develop more systematic, rigorous, transparent, and global methods for identifying, interpreting, and applying evidence in different decision-making contexts.

Expert groups should not be starting from scratch each time programmatic health policy recommendations are made.
Deliberative processes and evidence-informed decision making in healthcare: do they work and how might we know?

Anthony J. Culyer and Jonathan Lomas

For current purposes, however, we shall take the more consequentialist view that the outcome with which we are especially concerned is the decision that the process enables rather than the experiences of the participants. This flows automatically from our interest in deliberative processes as a way of not only eliciting, legitimising and incorporating stakeholder input, but also of usefully combining this with other evidentiary inputs for decision making. Thus we start with consideration of the latter: what should be considered as evidentiary input to a deliberative process?
‘Combining different types of evidence’

What constitutes evidence?
- Broad vs. narrow definitions
- Research, knowledge, wisdom, experience, information, data
- Science vs. values
- Talking to people

What is combining evidence?
- Combining vs. using evidence (e.g., identifying, interpreting, applying)
- Explicit vs. implicit
- Combining vs. decision-making
WEIGHING UP THE EVIDENCE
Making evidence-informed guidance accurate, achievable, and acceptable

[Diagram with Venn diagrams showing overlapping circles labeled: Pragmatics & Contingencies, Professional Experience & Expertise, Scientific Evidence, Political Judgment, Lobbyists & Pressure Groups, Resources, Habits & Tradition, Values]
When evidence is defined as science, its inclusion as part of guidance is determined through methodological tests. When it is defined colloquially, its inclusion is determined through relevance. Despite these differences, most authors covered in the review agreed that there is a need for evidence to be interpreted; the interpretation of evidence depends on who does the interpreting; and the legal definition of evidence is not very helpful for evidence-based health system guidance.
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The issue confronting any decision maker within a deliberative process is thus not so much how to balance the three types of evidence or to assess the weight to place on each, but rather to allow each to perform its appropriate task:

- scientific context-free evidence is evidence about general potential;
- scientific context-sensitive evidence is evidence about particular realistic scenarios;
- colloquial evidence helps to provide a context for otherwise context-free evidence and to supply the best evidence short of scientific evidence when there is neither context-free nor context-sensitive evidence.
“Evidence does not make decisions, people do”

Haynes et al., 2002
A role for deliberative methods in combining different types of evidence?
Systematic Review

Two overarching questions:

(Q1) How/when are deliberative methods used to combine heterogeneous evidence?

(Q2) What is known about the effectiveness of deliberative methods in combining heterogeneous evidence?
Methods 1/2

• Sources
  – 4 Health databases
    • Medline, Embase, HealthStar, CINAHL
  – 14 Non-health databases
    • ERIC, TRANSPORT, Business Source Premier, InfoTrac Environmental Issues & Policy eCollection, GEOBASE, ProQuest, Scholar’s Portal (IBSS, PsycINFO, SSCI, AGRICOLA, ESPM, PAIS, TOXLINE).
  – Other sources
    • Research team, expert recommendations, bibliographies, Google, Google Scholar/Books

• Search Strategy
• Articles were excluded if they:
  – were published before 1980;
  – were not written in English or French;
  – were not focused on the process of decision-making for public policy or management practice
    (e.g., were solely focused on individual/clinical decision making);
  – did not describe the combination of heterogeneous evidence (e.g., context-free scientific, context-
    sensitive scientific and/or colloquial evidence) within the decision-making process; or
  – did not collect data about how the process worked, or what participants thought about the
    process (i.e., were not evaluative).
Findings

• Total unique articles (all sources): **6853**
• Total high relevance articles: **15/0***
  • Health policy-related: 11
  • Other public policy-related: 4

*15 articles that were ultimately coded as high relevance did provide insights related to question (Q1), however these articles only indirectly addressed question (Q2)

• Characteristics of deliberative processes highly variable
• Evaluative approaches typically based on case studies incorporating qualitative methods

• Three factors emphasized
  – Deliberative approach
  – Nature of evidence use
  – Decision proximity
Deliberative approach
Introduction

This paper examines the involvement of patient organizations in the technological appraisal process of the National Institute for Clinical Excellence (NICE). The evidence draws together two policy contexts: professional, academic, and policy-making in the recent UK government health-care policy, evidence-based medicine (EBM) and patient participation. As part of the Labour government’s clinical governance agenda, NICE was launched in April 1999 with a view to advise the National Health Service (NHS) in England and Wales on the clinical effectiveness and cost-effectiveness of health-care technologies and to produce guidelines.

Patient participation in appraisals has been a learning process for both NICE and patient groups. NICE claims to treat all stakeholders equally, but patient groups feel that others, such as health professionals, health economists, and the pharmaceutical industry have more influence. Thus attempts by NICE at pluralistic involvement may be hampered by structural constraints. By extending the...
input to the process

Only two mentioned the lack of public, patient and carer involvement and the lack of an evidence base in the process. The lack of involvement of the public, patient and carer is a concern that needs to be addressed. We have called for an evidence base to be used in the development of the process. The use of an evidence base in all aspects of the process is important. We have identified a process designed to be used in all aspects of the process. The use of an evidence base is important in the development of the process. The lack of involvement of the public, patient and carer is a concern that needs to be addressed. We have called for an evidence base to be used in the development of the process. The use of an evidence base in all aspects of the process is important. We have identified a process designed to be used in all aspects of the process. The use of an evidence base is important in the development of the process. The lack of involvement of the public, patient and carer is a concern that needs to be addressed.
Patients’ influence

Stakeholder participation in health research agenda setting: the case of asthma and COPD research in the Netherlands

J. Francesca Caron-Fluitman, Jacqueline E. W. Broers, Julia Terceling, Melissa Y. van Alst, Simon Klaasen, L. Edwin Swart and Joske F. G. Bunders

Adequate representation of stakeholders

Three stakeholder groups participated in the agenda-setting process: patients, health care professionals, and scientists. During the consultation phase, respectively 13 (bio)medical scientists, six socio-cultural scientists, eight medical specialists/researchers, and 12 health care professionals were involved, representing the main disciplines involved in asthma and COPD research or care. In addition, more than 300 patients, who together reflect the demographic and disease-related characteristics of the entire NAF member community as well as the Dutch population of asthma and COPD patients in general, were consulted. In this way we achieved an adequate representation of Dutch asthma and COPD patients. We thus can conclude that during the consultation phase an adequate representation of stakeholders had been achieved.
Deliberation: Integrating Analytical Results into Environmental Decisions Involving Multiple Stakeholders

George E. Apostolakis* and Susan E. Pickert*

1. INTRODUCTION

Risk assessments have gained a significant amount of attention from both policymakers and the public over the past 30 years. As the influence of technology and policy decisions has become more prominent, so has the evaluation of trade-offs in a democratic society. This is particularly so in environmental decisions regarding the cleanup of contaminated sites. Risk assessments are often used to aid the decision maker, however, due to the multifaceted nature of risk and the fact that only a few dimensions that refer to risk and safety effects are usually analyzed, many decisions have been environmental. While increasing the multitude of objectives in order to meet societal needs, proponents and the responsible agencies are faced with difficult choices. Trade-offs among incompatible measures such as environmental.

To address these challenges, the National Research Council has recommended that the risk assessment (a risk assessment) incorporate all relevant stakeholders in the decision-making process from the start. They recommend an analytical framework process for dealing with decisions that involve substantial risk assessment. Risk assessments used to understand and quantify risk need to be utilized in conjunction with other problems. The effect of factors on the assumptions underlying the evaluation and decisions are clarified, understood, and validated. The basic premise is that, by involving the stakeholders in the risk assessment (the analytical part of the process) and by including deliberations, the decision-making process will be enhanced and the previous findings and actions taken will be implemented.

Our main objective in this paper is to address the dilemmas among the stakeholders in such a way that the most useful results and insights derived from analysis...
A Model for an Analytic—Deliberative Process in Risk Management

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How can and should risk managers collect public preferences, elicit experts' opinions, and assign weights to risk indicators? The paper proposes an analytic—deliberative process framework to address these questions. The framework involves identifying and designing policies by randomly selected citizens. The paper provides some empirical evidence about the application of this method from experiences in three different countries. The case studies show that analytical thinking and deliberative exchange of arguments cannot be separated but should be integrated in the decision-making process. At the same time, the sequential involvement of stakeholders, experts, and the general public proved to be a productive way of ensuring competence, fairness, and efficiency.

1. Introduction

Involving the public in environmental risk analysis and management has been a major approach in European and American risk policy arenas. The recent report by the National Academy of Sciences encourages risk managers to involve the public in decision making. The report emphasizes the need for a combination of environmental ethics and public involvement in risk management. The authors have termed this "analytic—deliberative" approach. Unfortunately, only early participation of the public in the decision-making process may compensate, however, for the objective of efficient and effective risk reduction or within the principle of fairness (2). Another problem is that the public considers many groups with different values and interests for an analytic—deliberative process. Following the specific requirements for analytic—deliberative processes, the following section will examine the specific requirements for analytic—deliberative processes in three different countries. The section will examine the specific requirements for analytic—deliberative processes in three different countries. The three sections will examine the specific requirements for analytic—deliberative processes in three different countries.
## Deliberative Approach

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<thead>
<tr>
<th>Democratic-Deliberative</th>
<th>Analytic-Deliberative</th>
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<tbody>
<tr>
<td>- Participatory process</td>
<td>- Technical/participatory process</td>
</tr>
<tr>
<td>- Seeks input from stakeholder/public representatives regarding values and preferences</td>
<td>- Seeks to combine technical knowledge/expertise with stakeholder/public values and preferences</td>
</tr>
<tr>
<td>- Aim to encourage discussion and consideration of the evidence</td>
<td>- Aim to improve understanding and comprehension of the evidence</td>
</tr>
<tr>
<td>- Recommendations are evidence-influenced</td>
<td>- Recommendations are evidence-informed</td>
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Nature of evidence use
Evidence-based priority setting

JULIE ASTLEY AND WENDY WAKE-DYSTER
Julie Astley is Chief Allied Health Physicist, at the Women's & Children's Hospital, Adelaide. Wendy Wake-Dyster is Director of Therapy Services, Repatriation and Children's Hospitals Association, Adelaide.

Abstract
This paper describes evidence-based priority setting and resource allocation undertaken by the Division of the Women's & Children's Hospital, Adelaide during 1998-1999. We describe the methods used to combine program budgeting and marginal analysis (PBMA), evidence based and community values approaches into one decision-making framework. Previous organisational changes involving the formation of multidisciplinary team and program management were pivotal in setting a framework to successfully complete the priority setting process.
absence of strong research evidence if government sees the need to respond to public concerns.

necessary to have all the evidence in place to agree actions, that more radical policy change is much more difficult to achieve in the absence of established and detailed evidence, given the interests of important stakeholders, notably the private sector. The process and the outcomes of the Summit suggest that in the absence of strong Type 1 data, and where Type 2 evidence is contested, that policy-makers may opt for the path of least resistance: a call for more and better research and support for the systematic evaluation of interventions. While beneficial to researchers, direct and short term health gain may be limited.

The type of evidence used was categorised into three types based on a model adapted from Bowen & Zwi [4] who outlined five types of evidence. The categorisation used in the current study were empirical research (Type 1), such as randomised controlled trials, case control and cohort studies, time series analyses, observational studies, case reports and qualitative studies; ideas and opinions (Type 2) which incorporated the two categories of 'knowledge and information' and 'ideas and interests' outlined by Bowen & Zwi, and included evidence such as the results of consultation processes, opinions and views of "experts", interest groups and community members; and economic data (Type 3) which focused on economic evaluation, finance and resource implications.
# Nature of Evidence Use

<table>
<thead>
<tr>
<th>Informal-Implicit</th>
<th>Formal-Explicit</th>
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<tr>
<td>Introduction of evidence often through informal channels (e.g., through general discussion)</td>
<td>Introduction of evidence primarily through formal processes resulting in broad/diverse evidence base</td>
</tr>
<tr>
<td>Interpretation of evidence based on expert assessment/evaluation</td>
<td>Interpretation of evidence based on formal assessment tools (e.g., GRADE, evidence hierarchies)</td>
</tr>
<tr>
<td>Combination of evidence through unstructured deliberation</td>
<td>Combination of evidence based on formal weighting criteria</td>
</tr>
<tr>
<td>The recommendation rather than the evidence is the main focus of the process</td>
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Decision proximity
Thus, our data suggest that for analyses to be viewed as acceptable, it is necessary that they provide information: (1) that end-users see as relevant (i.e. providing data on parameters that are likely to influence the decision of the policy-maker), (2) that is appropriate to the decisions being faced, taking into account relevant contextual factors (e.g. budgetary arrangements commonly seen in the NHS), and (3) that can inform implementation of decisions in a complex decision-making environment.
Implementation and evaluation of local-level priority setting for stroke

D Chapple¹, J Bailey¹, R Stacy², H Rodgers¹,² and K Thomson¹

¹Department of Epidemiology and Public Health, School of Health Sciences, The Medical School, University of Newcastle upon Tyne, Newcastle upon Tyne, UK; ²Department of Primary Health Care, School of Health Sciences, The Medical School, University of Newcastle upon Tyne, Newcastle upon Tyne, UK; and ³Department of Medicine (Geriatrics), School of Clinical Medical Sciences, The Medical School, University of Newcastle upon Tyne, Newcastle upon Tyne, UK.

We aimed to develop and evaluate a prioritisation process for stroke within a stroke programme, for a health improvement. Priority setting group (PSG) review of the evidence; involving local stakeholders (ie, patients, informal carers, and health and care professionals) and local emergency department (ED) stakeholders (ie, healthcare professionals, including ED clinicians, nurses, and managers). The process was piloted in a local hospital setting, with local hospitals. However, local hospitals and community-based stroke groups were not included in the study. The local hospital setting process was not clear in all participants and this was echoed by another interviewee who was concerned about a purely evidence-based approach:

"...published evidence lags a long way behind actual knowledge...it's important that we don't develop a wonderful evidence-based system which is fifteen years out of date...we've got to be very responsive in our plans to current developments." (INT 8)

We have developed a process which integrates evidence-based processes. This has been used to develop local priorities. Everyone felt that the right priorities were identified, although there remained some lack of clarity about how they were derived. There was also a concern that they are insufficiently owned to be actively taken forward. There was also a concern that they are insufficiently owned to be actively taken forward. Proof of the value of this process comes from the way in which district resources have already been harnessed to implement the priority areas identified. For example, hyper-
Patients’ influence

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Independent and unbiased management

The process management was in the hands of staff members of the Athena Institute who were all independent from both the Asthma Foundation and stakeholders as well as unbiased with reference to asthma and COPD research.
## Decision proximity

<table>
<thead>
<tr>
<th>Distal-General</th>
<th>Proximal-Specific</th>
</tr>
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<tbody>
<tr>
<td>Decision context is general, theoretical</td>
<td>Decision context is specific, operational</td>
</tr>
<tr>
<td>Key decision-maker audiences not always clearly identifiable</td>
<td>Key decision-maker audiences clearly identifiable</td>
</tr>
<tr>
<td>Relevant decision-making contexts are heterogeneous</td>
<td>Relevant decision-making contexts are homogenous</td>
</tr>
<tr>
<td>External to decision-making process</td>
<td>Linked to, or embedded within, decision-making process</td>
</tr>
<tr>
<td>Unlikely to be linked to a specific decision outcome</td>
<td>Likely to be linked to a specific decision outcome</td>
</tr>
<tr>
<td>Addresses ‘global’ issues including values and preferences</td>
<td>Addresses ‘local’ issues including effectiveness, feasibility and implementation</td>
</tr>
<tr>
<td>Context-specific evidence not sought</td>
<td>Context-specific evidence sought</td>
</tr>
<tr>
<td>Generates/combines evidence</td>
<td>Combines evidence</td>
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Conclusions

• What do we know about the effectiveness of deliberative methods for combining different types of evidence?

  – Identified numerous examples where deliberative methods are used in policy guidance processes.
  – However, there were only a handful of examples explicitly using deliberative methods to combine heterogeneous evidence, with a paucity of empirical work directly assessing their effectiveness.
  – The health sector has more established deliberative processes than other sectors, however work in the field of environmental policy provided important insights on the role of deliberative methods for combining heterogeneous evidence.

• Ultimately, we identified 3 key factors that influence how deliberative methods contribute to the combining of different types of evidence:

  – **Deliberative approach**: democratic vs. analytic
  – **Nature of evidence use**: formal/explicit vs. informal/implicit
  – **Decision proximity**: proximal-specific vs. distal-general
Acknowledgements

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