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

**Journées annuelles de santé publique**  
Montréal 12 March 2010



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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”*



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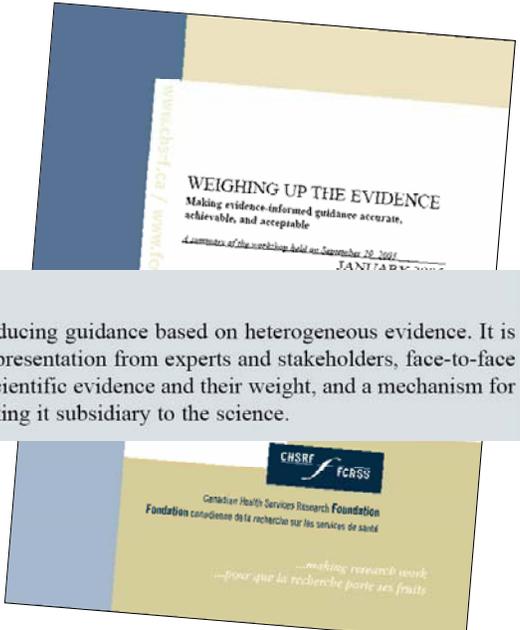


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# 'Deliberating' and 'deliberative methods'

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.

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### Deliberative processes and evidence-informed decision making in healthcare: do they work and how might we know?

Anthony J. Culyer and Jonathan Lomas

Evidence & Policy

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  
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...making research work  
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Professional Experience & Expertise  
Political Judgment  
Resources  
Values  
Habits & Tradition  
Lobbyists & Pressure Groups  
Pragmatics & Contingencies  
**Scientific Evidence**

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FINAL REPORT  
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...making research work  
...faire que la recherche porte ses fruits

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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Evidence & Policy • vol 2 • no 3 • 2006 • 357-71

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:

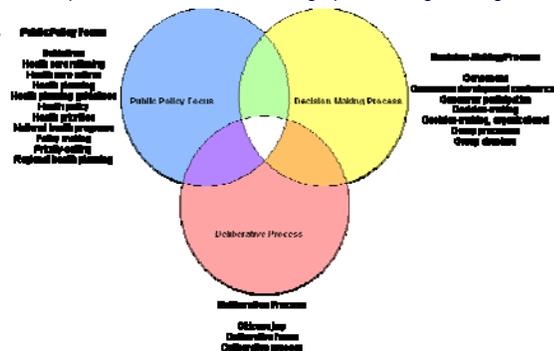
(Q1) How/when are deliberative methods used to combine heterogeneous evidence?

(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



## Methods 2/2

- 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

## Original paper Getting a word in edgeways? Patient group participation in the appraisal process of the National Institute for Clinical Excellence

Pauline Quarmell

The author is a Research Student, Department of Applied Social Science, University of Manchester, Manchester, UK.

**Keywords:** Patients' expectations, Gender, Clinical effectiveness

**Abstract:**

This paper examines patient organisations' participation in the technology appraisal process of the National Institute for Clinical Excellence (NICE), in particular, it examines policy areas prominent in recent UK government reforms – patient participation and evidence based medicine (EBM). Data have largely been obtained from structured interviews with patient group representatives in NICE's technology appraisal, publication and implementation team, NICE's customers, and a representative from NICE's contractors, and a perspective, supplemented by observation of the patient groups' Council meetings, and analysis of documentary evidence. The paper focuses on the 'evidence' in NICE's appraisal process, as it is directed to patient and scientific audiences. It aims to shed light on the evidence base used in NICE's appraisal process, and to explore the extent to which patient groups are involved in the appraisal process. It also explores the extent to which patient groups are involved in the appraisal process.

**Keywords:**

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The current issue and full text archive of this journal is available at <http://www.emeraldinsight.com/1473-2314.htm>

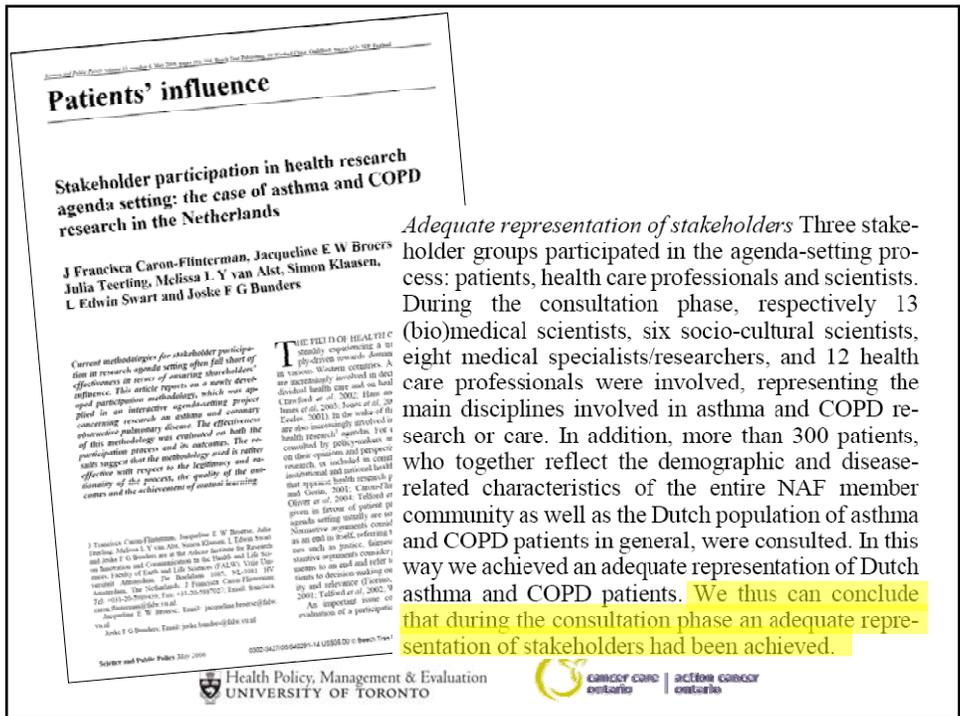
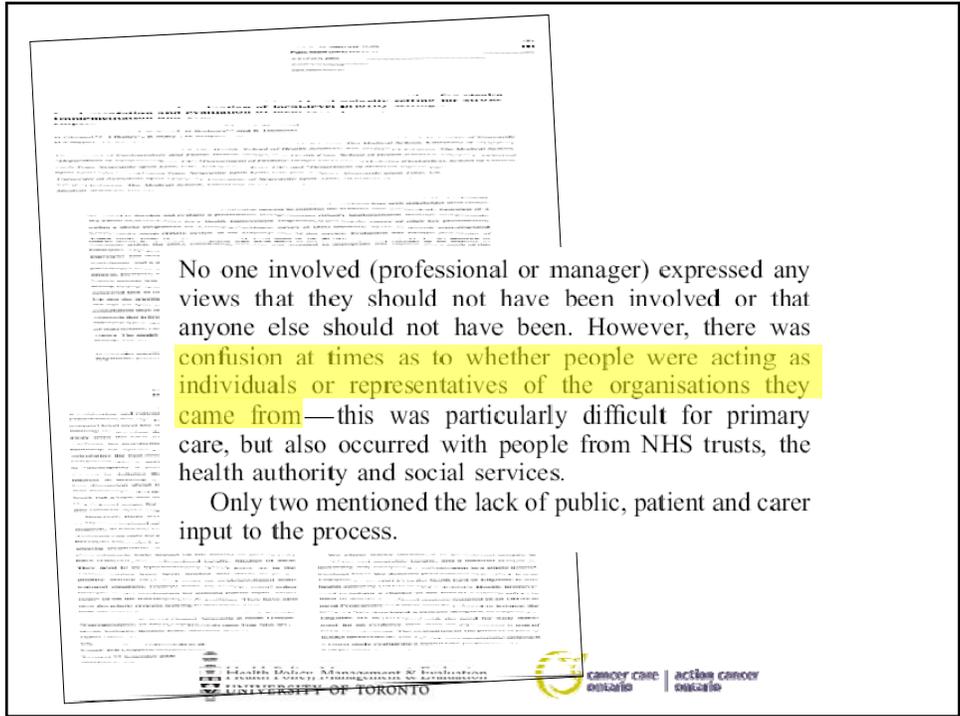
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### Introduction

This paper examines the involvement of patient organisations in the technology appraisal process of the National Institute for Clinical Excellence (NICE). The consultation draws together two policy elements prominent in 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 remit 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



Risk Analysis, Vol. 16, No. 4, 2002

**Deliberation: Integrating Analytical Results into Environmental Decisions Involving Multiple Stakeholders**

George E. Apostolakis<sup>1</sup> and Susan E. Pickett<sup>2</sup>

**A concern in utilizing deliberation in order to smooth out the differences among the stakeholders is that the technical issues often fall to the wayside, or**

Risk Analysis, Vol. 16, No. 4, 2002

of attention than have participated in the past 30 years, as the inscription of technology and policy choices has become more participatory in a democratic society. This is particularly so in environmental decisions regarding the control of contaminated sites. Risk assessments are often used to aid the decision maker however, due to the multidimensionality of risk and the fact that only its dimensions that refer to health and safety effects are usually analyzed, many decisions have been controversial. While balancing the magnitude of objectives in order to meet social needs, policymakers and the responsible agencies are faced with difficult choices. Traditionally, engineering measures, such as environmental

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Risk Analysis, Vol. 22, No. 1, 2002

**Policy Analysis**

**A Model for an Analytic-Deliberative Process in Risk Management**

ORTWIN RENN<sup>1</sup>  
Center of Technology Assessment, Industriestrasse 3,  
D-70565 Stuttgart, Germany

preferences. Without consensus on values, often appears to be the most needed that decision making, or new keywords are and co-decision. The popularity of communication, trust building, however, obscures the challenge of

**A Procedural Evaluation of an Analytic-Deliberative Process: The Columbia River Comprehensive Impact Assessment**

Aimee Giglietto Kinney<sup>1</sup> and Thomas M. Loehlin<sup>2</sup>

Risk Analysis, Vol. 15, No. 3, 2002

**Deliberation: Integrating Analytical Results into Environmental Decisions Involving Multiple Stakeholders**

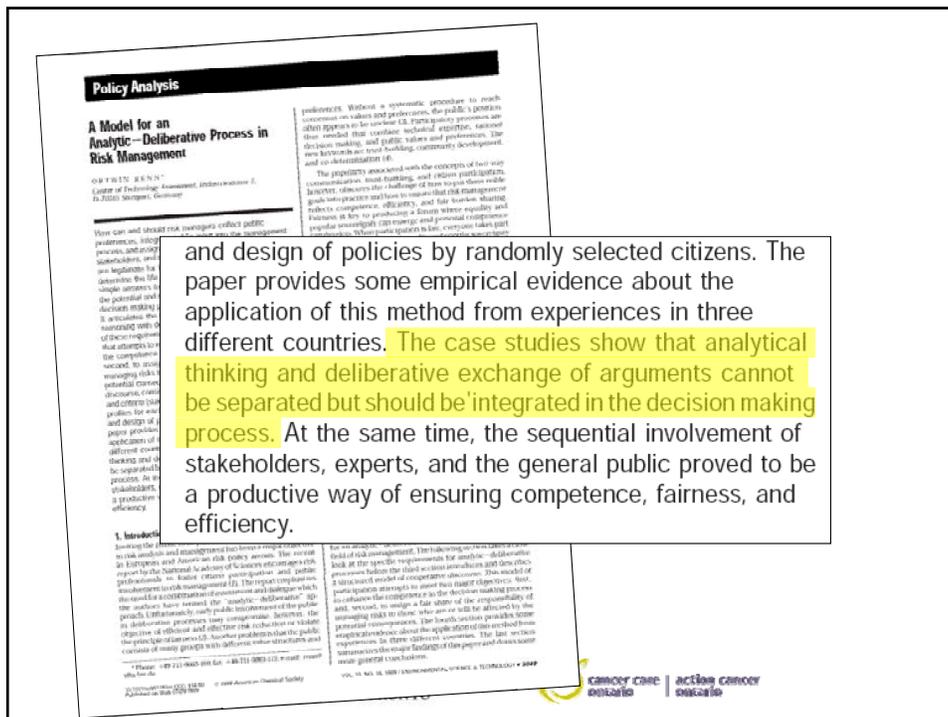
George E. Apostolakis<sup>1</sup> and Susan E. Pickett<sup>2</sup>

**Deliberative mapping: a novel analytic-deliberative methodology to support contested science-policy decisions**

Jacquelin Burgess, Andy Stirling, Judy Clark, Gail Davies, Makoto Emoto, Kristina Stealy and Suzanne Williamson

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## Deliberative Approach

Democratic-Deliberative	Analytic-Deliberative
<ul style="list-style-type: none"> <li>Participatory process</li> <li>Seeks input from stakeholder/public representatives regarding values and preferences</li> <li>Aim to encourage discussion and consideration of the evidence</li> <li>Recommendations are evidence-influenced</li> </ul>	<ul style="list-style-type: none"> <li>Technical/participatory process</li> <li>Seeks to combine technical knowledge/expertise with stakeholder/public values and preferences</li> <li>Aim to improve understanding and comprehension of the evidence</li> <li>Recommendations are evidence-informed</li> </ul>

# Nature of evidence use

## Abstract

*This paper describes evidence-based priority setting and resource allocation undertaken by a Division of the Women's & Children's Hospital Adelaide during 1998-1999. We describe the methods used to combine program budgeting 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.

*Australia and New Zealand Health Policy 2005, 2:17*

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.

**Australia and New Zealand Health Policy**

Research  
**An Australian childhood obesity summit: the role of data and evidence in 'public' policy making**  
 Nathan SA<sup>1</sup>, Develin E<sup>1</sup>, Grove N<sup>1</sup> and Zwi AB<sup>1</sup>

Address: <sup>1</sup>School of Public Health and Community Medicine, the University of Queensland  
 Chronic Disease Prevention and Control Laboratory

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obesity. It raised awareness in the public and political arena and provided a public forum for debating research evidence. The Summit demonstrated that while it is not

Particular attention. 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.

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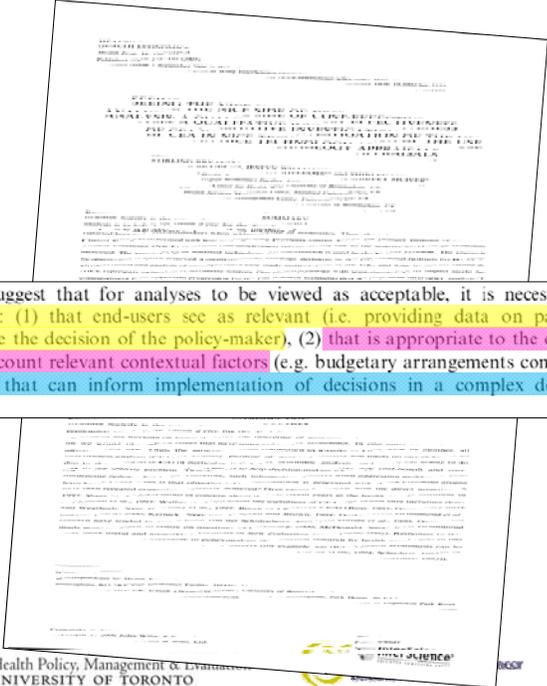
## Nature of Evidence Use

Informal-Implicit	Formal-Explicit
<ul style="list-style-type: none"> <li>Introduction of evidence often through informal channels (e.g., through general discussion)</li> <li>Interpretation of evidence based on expert assessment/evaluation</li> <li>Combination of evidence through unstructured deliberation</li> <li>The recommendation rather than the evidence is the main focus of the process</li> </ul>	<ul style="list-style-type: none"> <li>Introduction of evidence primarily through formal processes resulting in broad/diverse evidence base</li> <li>Interpretation of evidence based on formal assessment tools (e.g., GRADE, evidence hierarchies)</li> <li>Combination of evidence based on formal weighting criteria</li> <li>The evidence rather than the recommendation is the main focus of the process</li> </ul>

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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.

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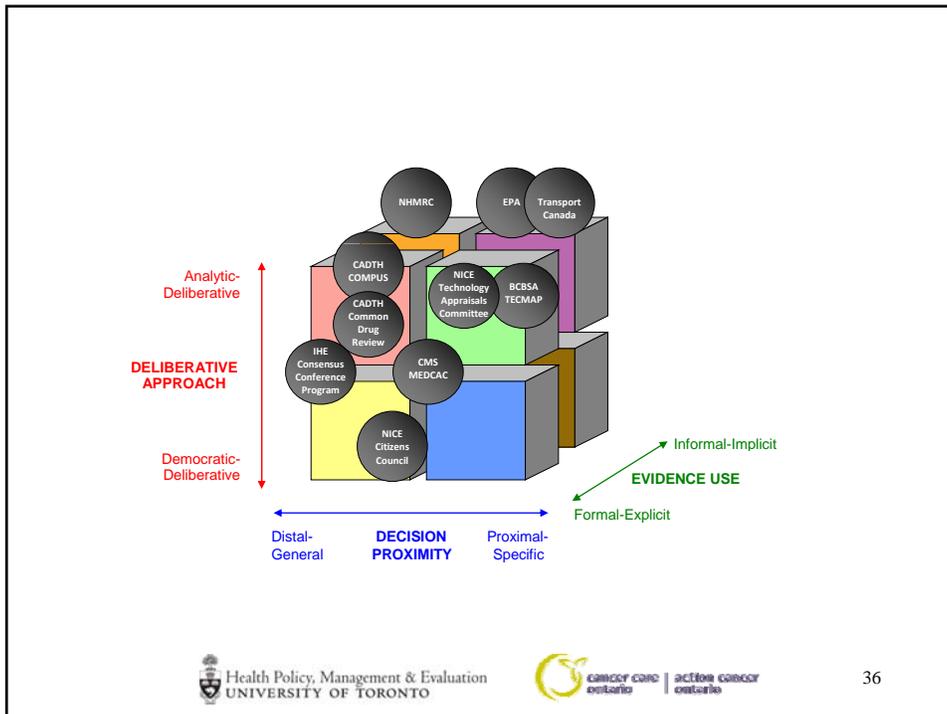
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# Decision proximity

Distal-General	Proximal-Specific
<ul style="list-style-type: none"> <li>Decision context is general, theoretical</li> <li>Key decision-maker audiences not always clearly identifiable</li> <li>Relevant decision-making contexts are heterogeneous</li> <li>External to decision-making process</li> <li>Unlikely to be linked to a specific decision outcome</li> <li>Addresses 'global' issues including values and preferences</li> <li>Context-specific evidence not sought</li> <li>Generates/combines evidence</li> </ul>	<ul style="list-style-type: none"> <li>Decision context is specific, operational</li> <li>Key decision-maker audiences clearly identifiable</li> <li>Relevant decision-making contexts are homogenous</li> <li>Linked to, or embedded within, decision-making process</li> <li>Likely to be linked to a specific decision outcome</li> <li>Addresses 'local' issues including effectiveness, feasibility and implementation</li> <li>Context-specific evidence sought</li> <li>Combines evidence</li> </ul>



# 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

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