Canadian Health Services Research **Foundation**
Fondation canadienne de la recherche sur les services de santé

Evidence Reconsidered for Health System Guidance

JASP - Quebec City, 19 November 2008

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[on behalf of the 'What is evidence team']

Making Research Work

Pour que la recherche porte ses fruits

Conceptualizing and Combining Evidence for Health-System Guidance

May 2005

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Weighing Up the Evidence

Sept. 29, 2005

Workshop of leaders of organizations that offer guidance to health systems (e.g., CCOHTA; AETMIS; NICE; ZonMW; US and CDN evidence-based practice centres; health quality councils)

Outline

- What is evidence?
- What is guidance?
- What are deliberative processes?
- What are factors for success?

- ….why bother??

Why (1) - healthcare system challenges

- imperfect or incomplete scientific ‘evidence’
- imperfect decisions in healthcare; no absolute solutions
- many perspectives on both of the above

BUT – we know/believe:

- where there is uncertainty, second best answers lie in attention to ‘reasonable’ decision-making processes while we work on the content

AND

- greater attention to evidence in the process IS part of finding better solutions

Why (2) – particular challenge

- Multiple forms of guidance for the health system
  - e.g. practice guidelines, benchmarks, standards, expert advisories, and so on.
- But … what counts as evidence in *evidence*-based guidance?
  - as in, but not restricted to, “evidence-based benchmarks for medically acceptable wait times”

Why (3) - CHSRF

Our vision is a strong Canadian healthcare system that is guided by solid, research-informed management and policy decisions.

Our mission is to support evidence-informed decision-making in the organization, management and delivery of health services through funding research, building capacity and transferring knowledge.

- Increasing the value of application in academic context
- Increasing the value of research/evidence in delivery context

Background

- First Ministers' commitment to establish "evidence-based benchmarks for medically acceptable wait times" (Sept '04)
- P/T wait times working group interested in looking beyond a clinical definition of evidence. Hence, our first question:

  In addition to research on health outcomes, what other forms of information count as evidence for clinical, management, or policy decision-making in the health sector?

- Consideration of 'kinds of evidence' led to a second question:

  How can various forms of evidence and stakeholder perspectives be combined through a deliberative process to yield evidence-informed guidance for health systems?

Key messages (5)

- Researchers view evidence as *scientific* as judged by the *methods*; non-researchers view evidence as *facts* as judged by their *relevance*.
- Three kinds of evidence need to be elicited and combined in deliberative processes to develop health system guidance: scientific evidence on effectiveness; scientific evidence related to context; and, colloquial evidence.
- New definition of evidence offered.
- New definition of deliberative process offered.
- Results of this work can contribute to practical and more sophisticated approaches to the creation of guidelines for healthcare systems

Methods

Rapid review
(3-5 months)

EXPERT

Q1 n=549 articles

Q2 n=21 articles

ELECTRONIC

Q1 n=1,694 articles

Q2 n=834 articles

BIBLIOGRAPHY

Q1 not done

Q2 n=10 articles, 1 book

Inclusion Criteria

Q1 Evidence

- Definitional aspects of evidence
- Relevance of sources/forms of evidence for decision making

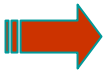
Q2 Deliberative Process:

- Definitional aspects of deliberative process
- Describe tried and evaluated DP involving research evidence

Potentially Relevant

Q1 n=188

Q2 n= 28



INCLUDED

Q1 n=29

Q2 n= 15

What is evidence?

Some not-very-straightforward answers:

1. Evidence is not absolute and what it means is not a given.
2. You can define it, but your definition will not be applicable, nor necessarily useful, to all evidence-based practices.
3. It is important to distinguish scientific from non-scientific forms of evidence.
4. It is important to distinguish evidence from non-evidence.
5. A better question: “What is the most appropriate information for accomplishing a given objective?” (aspirational vs. actionable)

What is meant by guidance?

– Not the same as research summaries or synthesis
– Not the same as drawing implications from research
– Not the same as evidence-based decision-making

Guidance

Guidance is the set of options presented to decision makers by neutral parties on what to do in response to a particular issue and how to do it. Evidence-informed guidance goes beyond summarizing or synthesis of research: it makes recommendations for concrete action that consider scientifically proven practices and the contextual factors moderating implementability.

What is evidence? – A reminder

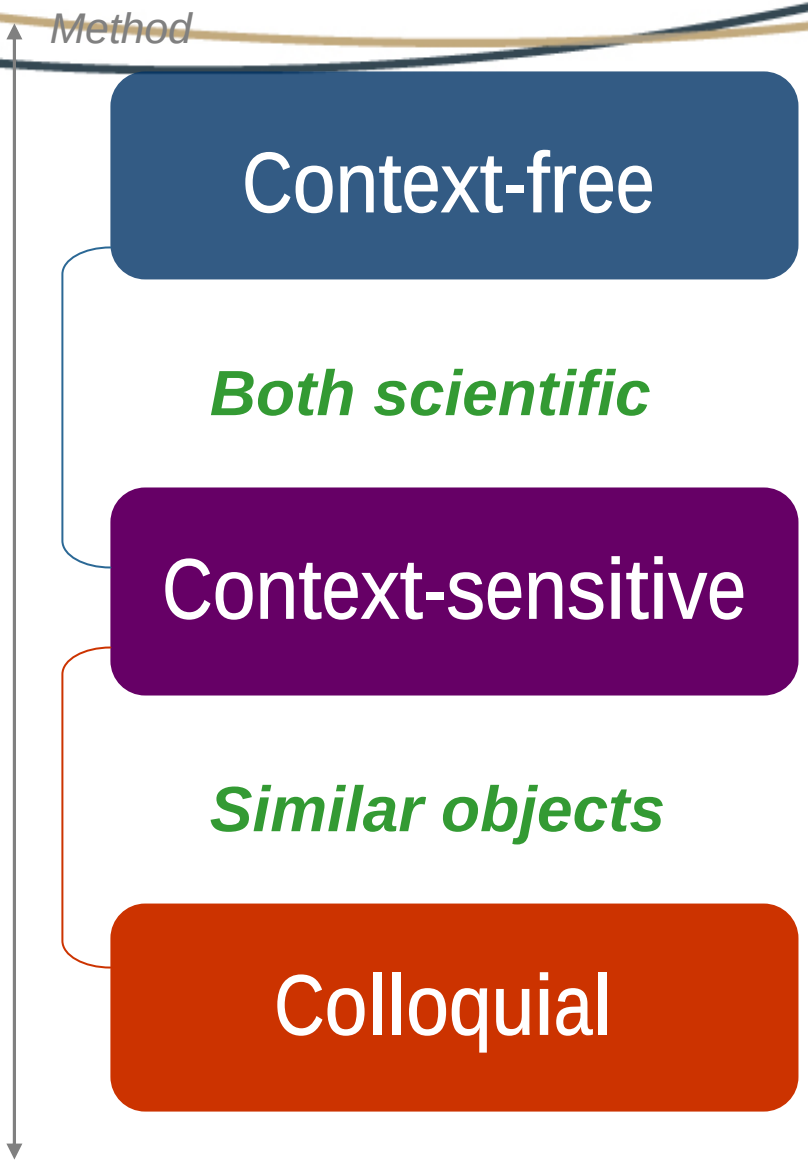
Evidence

1) Systematic reviews and meta-analyses
2) Randomised controlled trials with definitive results
3) Randomised controlled trials with non-definitive results
4) Cohort studies
5) Case-control studies
6) Cross sectional surveys
7) Case reports

(Pettigrew and Roberts 2003, 527).

Evidence is “anything that establishes a fact or gives reason for believing something” (Oxford American Dictionary, 1980)

Evidence Comes in Kinds



- "the *philosophical-normative* orientation towards what constitutes evidence is unconstrained by context" (Dobrow et al.)
- What works?

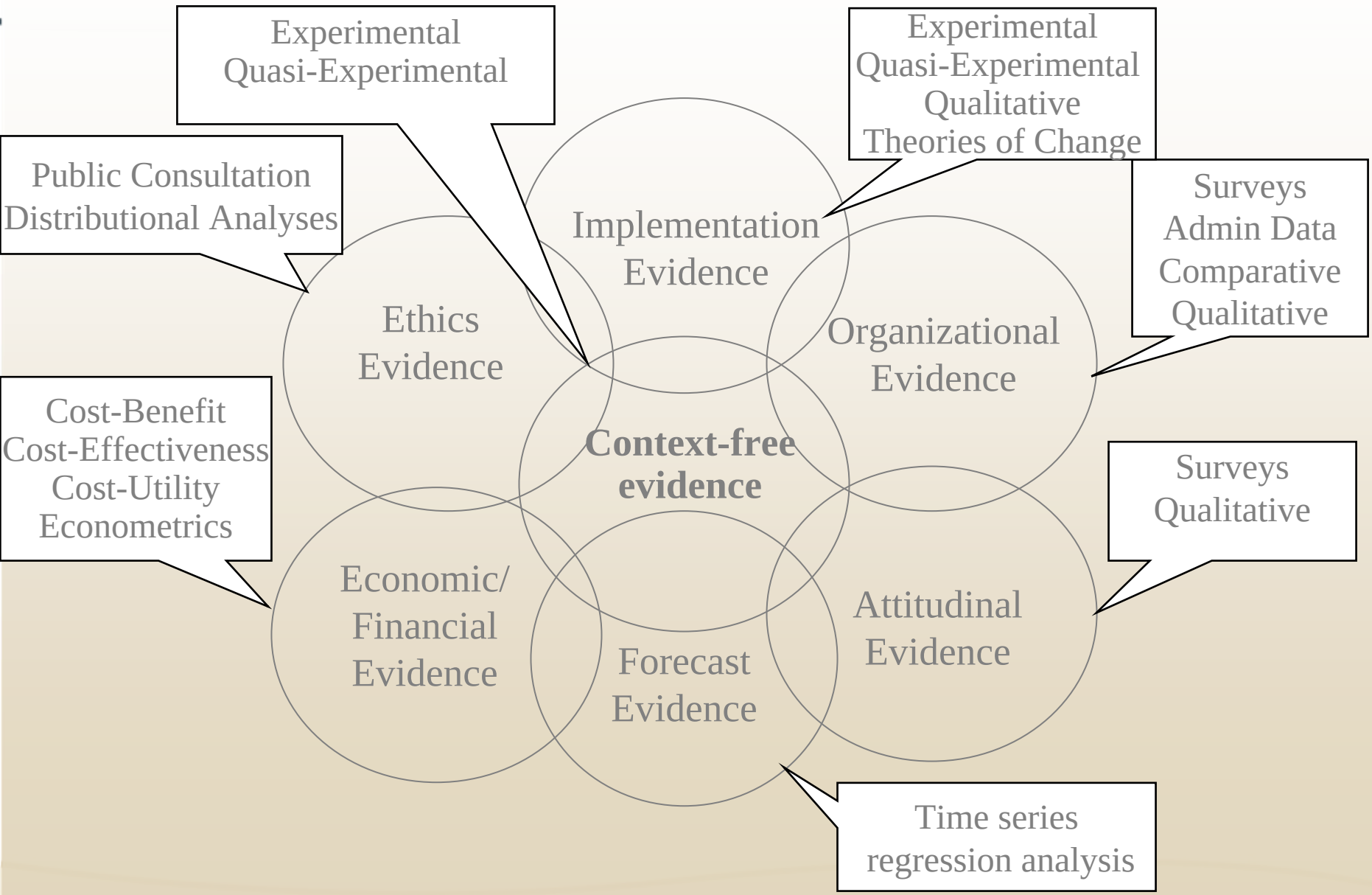
- "the *practical-operational* orientation to what constitutes evidence is context-based, with evidence defined with respect to a specific decision"
- Will it work here? Should it be done? How do we do it?

- "evidence is proxy for 'most up-to-date information' on a subject — nothing more, nothing less."
- "anything that establishes a fact or gives reason for believing something" (Oxford American Dictionary)

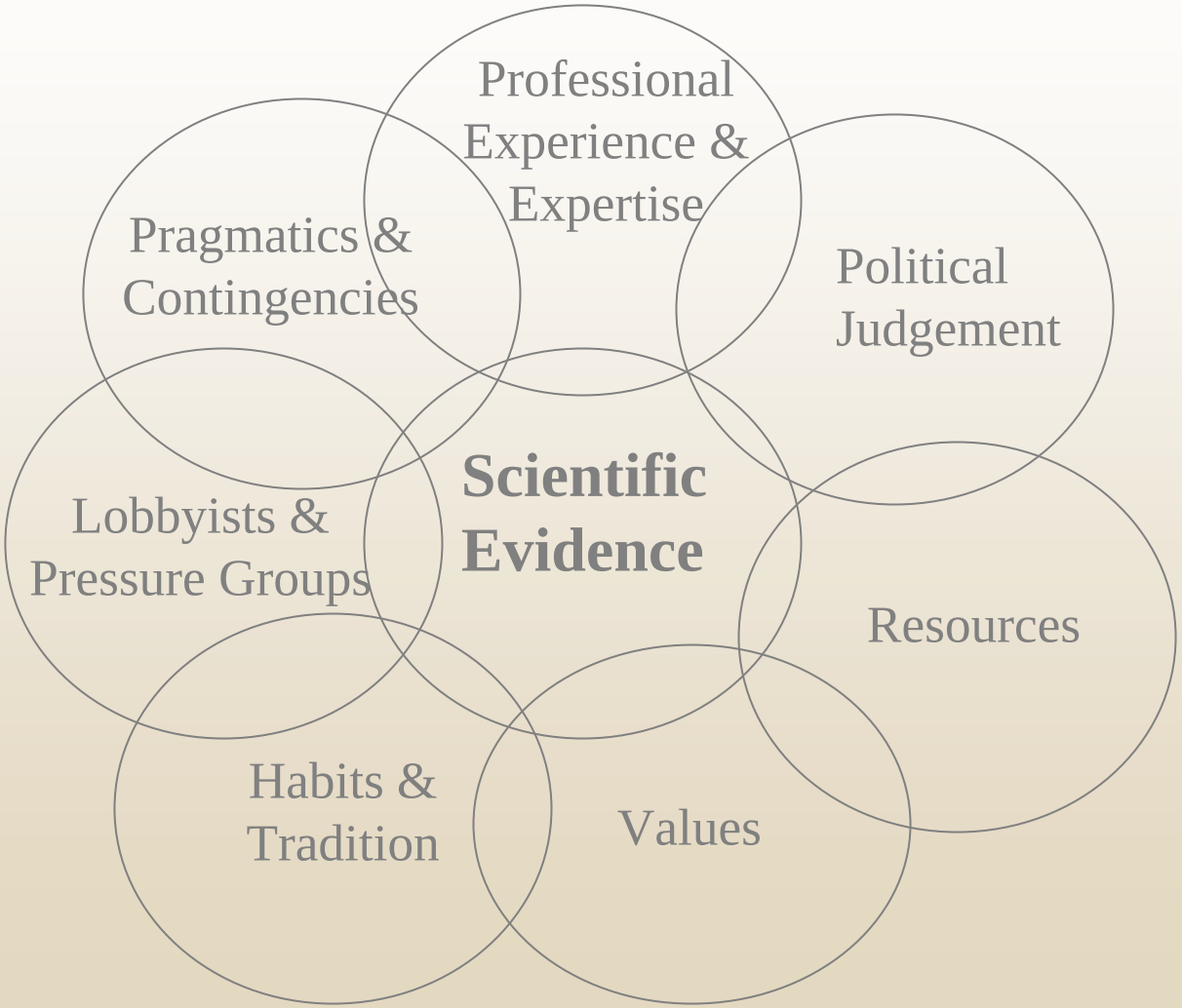
Evidence Comes in Kinds

- Context
- With respect to evidence-informed guidance, context refers to the conditions of implementation. A proven intervention will be more or less effective depending on the context in which it is deployed.

Scientific evidence: Context-sensitive complements context-free



Colloquial evidence informs scientific evidence



Evidence Defined (finally)

CHSRF Mission

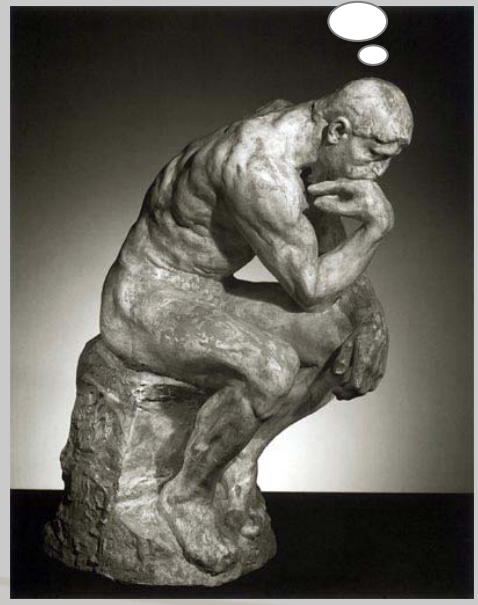
To support **evidence**-informed decision-making in the organization, management and delivery of health services through funding research, building capacity and transferring knowledge.

Evidence is information that comes closest to the facts of a matter. The form it takes depends on context. The findings of high quality, methodologically appropriate research are the most accurate evidence. Because research is often incomplete and sometimes contradictory or unavailable, other kinds of information are necessary supplements to or stand-ins for research. The evidence base for a decision is the multiple forms of evidence combined to balance rigour with expedience – while privileging the former over the latter.

Why a deliberative process?

How do you combine all three forms of evidence…

…such that the values influencing the assignment of weight are not hidden but explicit.



The synthesis of the research evidence may be rigorous and transparent, but the judgments tend to be opaque.

— Raine et al., 2003

Where we started

To move from evidence to guidance we must draw on values and make judgments.

Solutions to combining scientific evidence do exist, **but**:

- algorithmic approaches tend to "bury under a series of assumptions many value judgments that may or may not reflect those of the broader population" (Lomas et al., 2003); and
- scientific and colloquial evidence are too dissimilar to be combined without transparent deliberation.

What is a deliberative process?

Petts definition

A deliberative process is a "participatory process that has clear objectives; is inclusive and transparent; challenges science; promotes dialogue between all parties; promotes a consensus about the potential decision, and directly impacts [sic] on the decision itself" (Petts, 2004)

Our definition

A deliberative process is a tool for producing guidance based on heterogeneous evidence. It is a participatory process that includes representation from both 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.

Technical

Eliciting and combining evidence

- To bring evidence together and weigh it all up
- To reveal “evidence” not otherwise available
- Exposing and/or resolving conflict over evidence

Practical

Producing implementable guidance

- To get potential opposition inside the tent
- To let all stakeholders have their say
- To embody implementation issues of specific contexts

Nature and role of colloquial evidence changes

Political

Democratic governance

- Involvement of people in their own governance
- Transparency and accountability
- To embody the public’s values

Combining evidence mixes politics and science

There is no value-neutral, scientific solution to combining the different forms of evidence. A deliberative process appears to be the most promising approach to achieving a balanced consensus because it can preserve scientific integrity whilst giving a voice to those affected by an outcome

Factors for success? (1)

Background Resources

- well-conducted scientific research
- well-defined questions to be answered
- well-resourced support staffing
- meta-analyses and systematic reviews of scientific evidence
- availability of research into the public's views on ethical and other value issues

Factors for success? (2)

Rules and Expectations

- clear time-lines for submission and consideration of evidence
- separate consideration of scientific and colloquial evidence
- clear deadlines for decisions
- time for study, discussion and reflection
- opportunities for all interested parties to comment
- ability for members to request further information and take oral evidence
- opportunity for appeal if process has been flawed or decision appears unreasonable

Factors for success? (3)

Participant Selection

- participant selection adequately represents expertise with respect to the relevant scientific evidence
- participant selection adequately represents breadth of colloquial sources of evidence
- participation of recognized and respected people from the major communities of interest
- opportunities for all affected parties to be represented

Applications for CHSRF

1. More research on deliberative processes (2007-2009)
2. Enhanced approach to synthesis for decision makers:

   Decision Support Synthesis program:

   - Answers system-driven questions within a reasonable timeframe with recommendations for practice and policy
   - Recognizes multiple types of evidence, not just research;
   - Involves collaboration (decision makers and researchers) throughout:
     - defining the scope of review,
     - summarizing the research evidence,
     - drawing out implications from the research, and
     - creating recommendations for management or policy;
     - a role for deliberative processes

Thank you – Merci

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