

Health Technology Assessment: A  
Comprehensive Framework for  
Evidence-Based Recommendations in  
Ontario

Ana Johnson, Ph.D.  
Canada Research Chair in Health Policy

Queen's University

# Ontario Health Technology Assessment Committee - OHTAC

- **Ministry of Health recognized need for a system to address uptake and diffusion of health technologies**
- **OHTAC developed in 2003**

# Ontario Health Technology Assessment Committee - OHTAC

- **Nondrug health technologies**
- **OHTAC receives a request for a review of a health technology from potential purchasers, mostly hospitals or from the Ministry**

# Ontario Health Technology Assessment Committee - OHTAC

- **Only health technologies approved by Health Canada are taken into consideration – funding; not funding; field evaluation**
- **16 programs, treatments**
- **81% uptake; 6% contrary**

# Ontario Health Technology Assessment Committee - OHTAC

- **OHTAC believed that to consider economic, social, and ethical aspects within the recommendation process more fully, revision of the pre-existing decision process was required**

# Ontario Health Technology Assessment Committee - OHTAC

- **Decision Determinants Sub-Committee was convened in January 2007 to provide guidance to OHTAC**
- **Committee members: decision making experts, clinical epidemiologists, clinicians, health economists, policy makers, health services researchers**

# Decision Determinants Subcommittee

- **Work guided by review of literature and discussions with key informants: evidence-based medicine, health economics, decision analysis, bioethics, health policy**

# Decision Determinants Subcommittee

- **Literature**

**What criteria used to make health technology recommendations?**

**What methods used to evaluate health technologies (i.e., weights, ranking, rating)?**

**What methodology used to synthesize criteria (i.e., process, rules, frameworks)?**



# Conceptual Foundations

- **Subcommittee drew on several key ideas: evidence based medicine, cost-effectiveness, Accountability of Reasonableness, and a deliberative process**

# Conceptual Foundations

- **Subcommittee believed that scientific or context-free evidence must play a role in decision making**
- **Also recognized**
  - Context sensitive evidence (e.g., cost-effectiveness, social surveys)**
  - Expert opinion**
  - Colloquial evidence**

# Recommendations

- **Transparency & consistency**
- **4 explicit criteria**
- **Fair & deliberative process**
- **Right to challenge**

# OHTAC's Decision Process

## Criterion 1

### Overall Clinical Benefit

*Effectiveness*

*Safety*

*Burden of Illness*

*Need*



## Criterion 2

### Consistency with Social & Ethical values

*Societal Values*

*Ethical Values*



## Criterion 3

### Value for Money

*Economic Evaluation*



## Criterion 4

### Health Systems Feasibility

*Economic Feasibility*

*Organizational Feasibility*

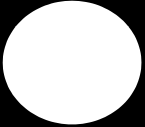

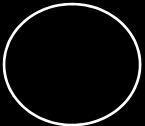



Evaluate the criteria  
through a deliberative  
process.

State recommendation and  
value judgments based on  
these criteria.

How to Put this all Together?

# Evaluation of Criteria

# Evaluation of Criteria

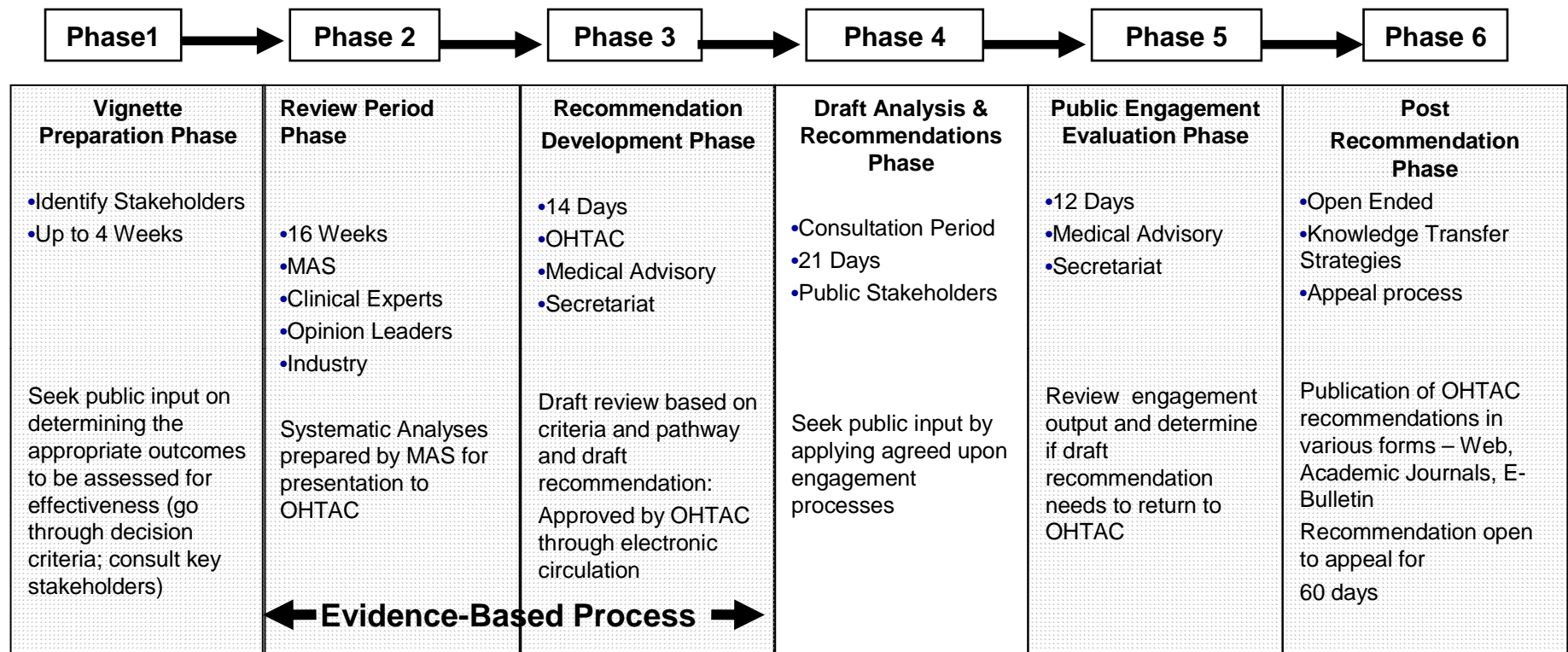
<b>Decision Criterion</b>	<b>Rating</b>	<b>Evidence</b>	<b>Type of Evidence/ *Quality</b>	<b>Evidence Assessment</b>
Clinical Benefit	○	Effectiveness	RCTs/High	Significant decrease in mortality
		Safety	Case Reports/LOW	Acceptable safety profile
		Burden of Illness	MOHLTC database	High prevalence and incidence in ON
		Need	No alternate treatment as per experts	No effective alternate treatment

# Conclusion

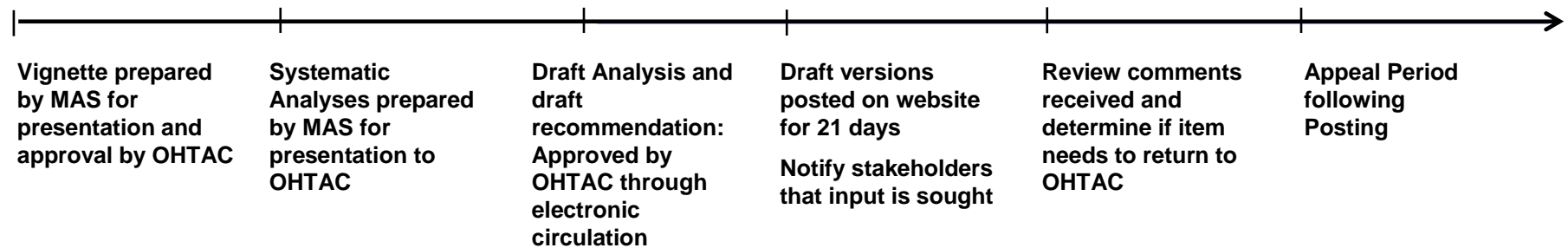
- **Development of an explicit framework for the recommendation of adoption of new health technologies**
- **Framework is currently being used by OHTAC – pilot testing**
  - **Feasibility**
  - **Acceptability**
  - **Perceived usefulness**



# MAS – OHTAC Decision Determinants Overview



## OHTAC Presentation



# Definitions of Criteria

Criteria	Definition	*Evidence
Overall Clinical Benefit	A measure of the <u>net health benefit</u> of using the technology to diagnose or manage a healthcare condition (e.g., heart failure) or health care related issue (e.g., infection control)	<ul style="list-style-type: none"> <li>• Effectiveness</li> <li>• Safety</li> <li>• Burden of Illness</li> <li>• Need</li> </ul>
Consistency with Societal/Ethical Values	A balanced judgement made after considering information on societal/ethical values	<ul style="list-style-type: none"> <li>• Societal Values</li> <li>• Ethical Values</li> </ul>
Value for Money	A measure of the <u>net efficiency</u> of the technology compared to available alternatives (no cut-off threshold)	<ul style="list-style-type: none"> <li>• ICER, Cost-Utility, Acceptability Curves, Cost-consequence</li> </ul>
Health Systems Feasibility	A measure of the ease with which the technology can be adopted into the ON system	<ul style="list-style-type: none"> <li>• Economic Feasibility</li> <li>• Organizational Feasibility</li> </ul>