

# What We Mean When We Say “Uncertainty” & What to Do About It

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# Uncertainty

# Uncertainty in Health Technology Assessment

Type of Uncertainty	Examples
<b>Parameter Uncertainty</b>	What is the effectiveness of the treatment? What resources do patients use?
<b>Assumption Uncertainty</b>	What is the relationship between progression free survival and overall survival?
<b>Structural Uncertainty</b>	What is the clinical treatment pathway? What are the relationships between parameters?
<b>Methodological Uncertainty</b>	What discount rate should be used? What is the most appropriate method for estimating survival curves?



# Uncertainty



Gather  
More  
Information

# Value of Information =

- What it's worth to reduce uncertainty
- What are the stakes for trying something

## Outcomes Based Agreements

### A Conceptual Framework for Life-Cycle Health Technology Assessment Kirwin, et al (2022)

- Research Oriented Managed Access (ROMA)  
[https://www.valueinhealthjournal.com/article/S1098-3015\(22\)00001-8/fulltext](https://www.valueinhealthjournal.com/article/S1098-3015(22)00001-8/fulltext)



# The Institute of Health Economics

- Independent non-profit
- Positioned at intersection of government, academia, & industry
- Multidisciplinary capabilities emphasizing economics, evidence, & policy

**Nonpartisan, unbiased, objective**



# Health Technology Innovation Platform (HTIP) Public-Private Partnership



# Health Technology Innovation Platform (HTIP)

## Mission:

- Reduce uncertainty & manage risk for payers & industry
- Enable timely adoption of innovative therapies by addressing uncertainty
- Enable value-based investment & reinvestment decision-making
- Operationalize pro-innovation ecosystem across Canada
- Strengthen policy dialogue between innovators and payers

# Health Technology Innovation Platform (HTIP)

## HTIP 1.0 initial 3-year term with 3 strategic priorities:

### Operationalizing RWE for Decision-making

- Identification of methods & tools
- Gap analysis
- “Stress testing” via dev/demo projects
- Validated model, methods & processes

**RWE Manual**

**Methods Training  
(Value of Information)**

### Outcomes Based Agreements

- Frameworks for risk management
- Outcomes-based contracting resource development
- Outcomes monitoring, reporting

**White paper, templates,  
recommendations**

**Path Finding Workshop**

### Innovative funding models

- Novel risk-balanced funding and contracting concepts and models
- Wide ranging options – from blue sky to pragmatic

**Encyclopedia of Options**

**Recommendations  
Manuscript**

# HTIP 2.0 – *In Development*

- Working definition of priorities
  - Rare diseases, precision medicine, & other reimbursement challenges
  - Data standards & infrastructure for innovative agreements (OBAs)
  - Evolution of information reviewed where drugs have uncertainty
  - Leveraging administrative health data
  
- Expansion of participation

# Thank you!

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