

Data Challenges in Health Technology Assessment: A Canadian Perspective

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CADTH

Three words that define Canada



SNOW



POT

HOCKEY



CADTH

About CADTH

- A national Health Technology Assessment (HTA) agency in Canada
- Provides evidence-based reimbursement advice to public payers

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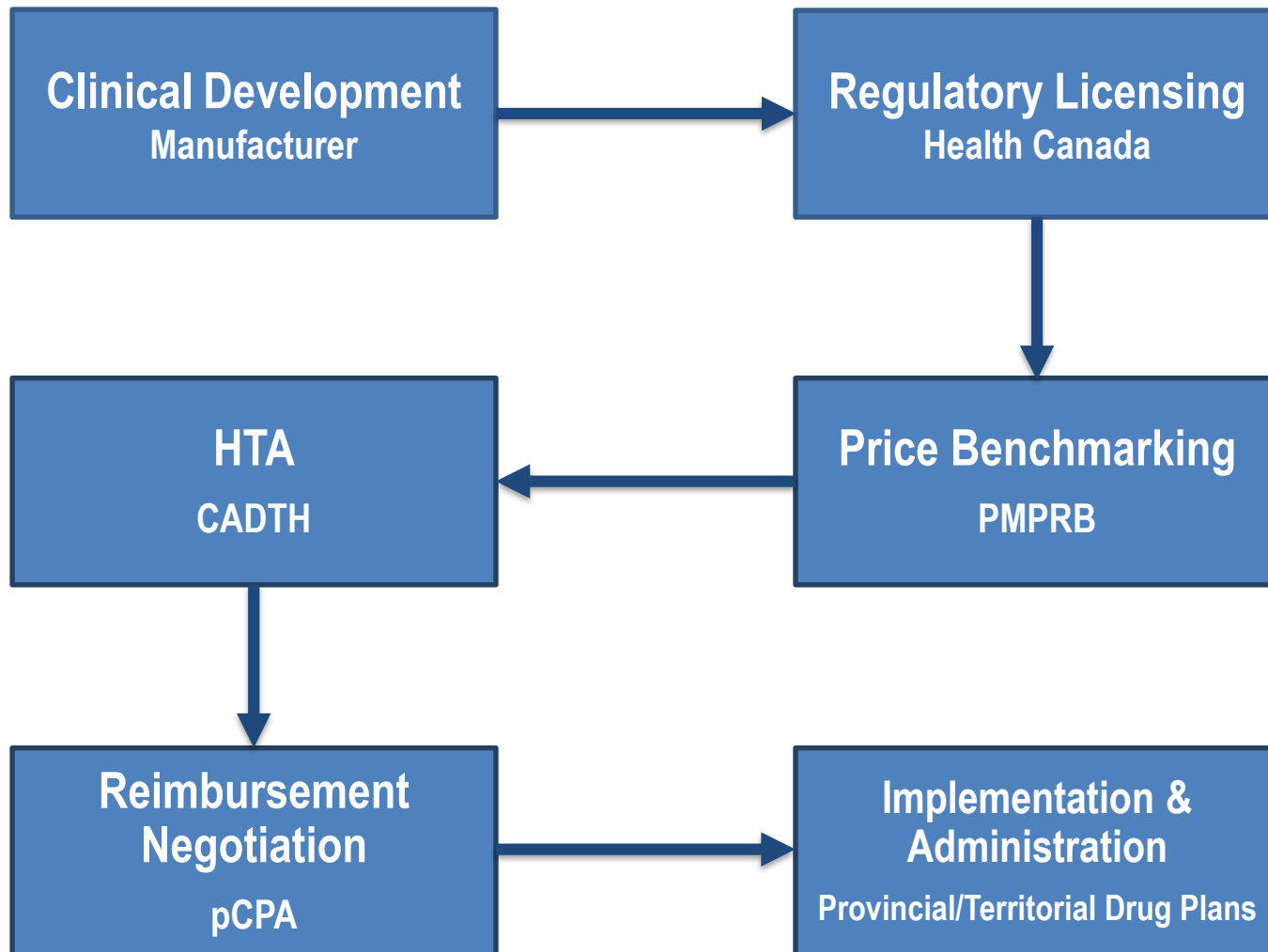
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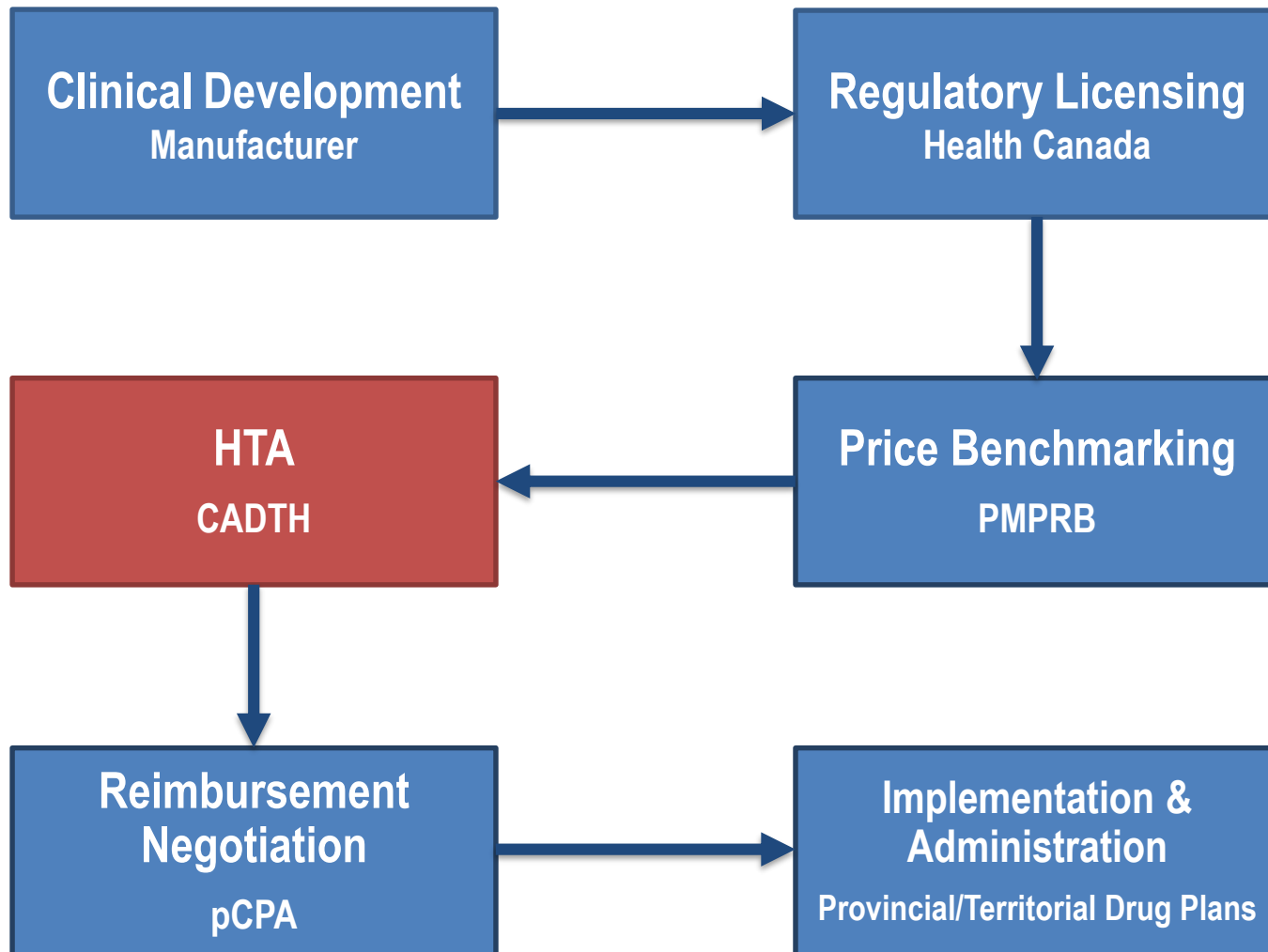
CADTH HTA Process

- Independent
- Robust
- Objective
- Inclusive
- Transparent
- Equitable
- Evidence-based

Drug Review Process in Canada



Drug Review Process in Canada



Health Technology Assessment

HTA seeks to assess the **value** of healthcare technologies

For public payers, value is assessed as **cost-effectiveness** at the individual patient level

Key data for HTA:

- Clinical effects
- Cost

HTA Data Challenges

Ensuring good value means maximizing cost-effectiveness through:

- maximizing efficacy
- minimizing harm
- minimizing cost

$$\text{value} \approx \frac{\text{net benefit (efficacy - harm)}}{\text{incremental cost}}$$

Data Challenges in Value Assessment

Uncertain data = uncertain value

Sources of uncertainty:

- Clinical data
 - Uncertain effect sizes
 - Clinical relevance of effects
 - Surrogate outcomes
 - Indirect comparisons
- Cost data
 - Population size (utilization)
 - Real-world effectiveness

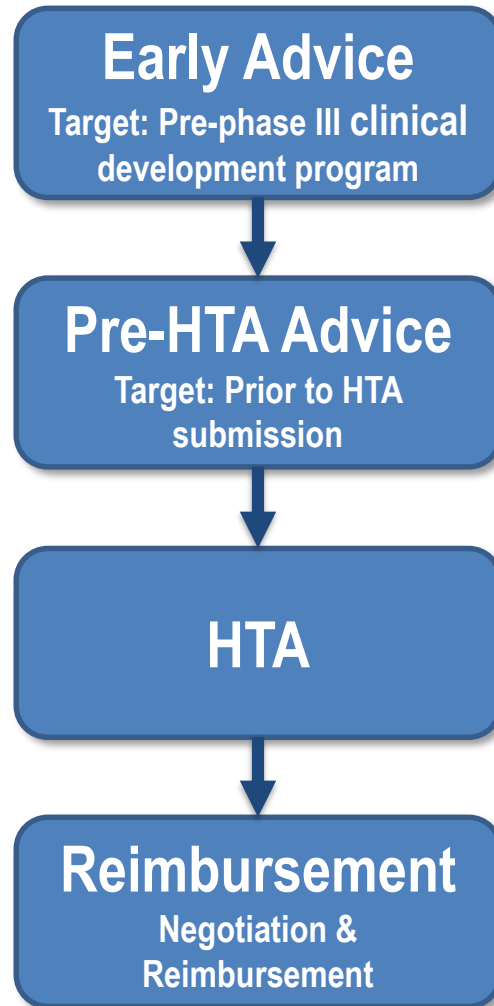
“In God we trust; all others bring data.”

— W. Edwards Deming (1900–1993)

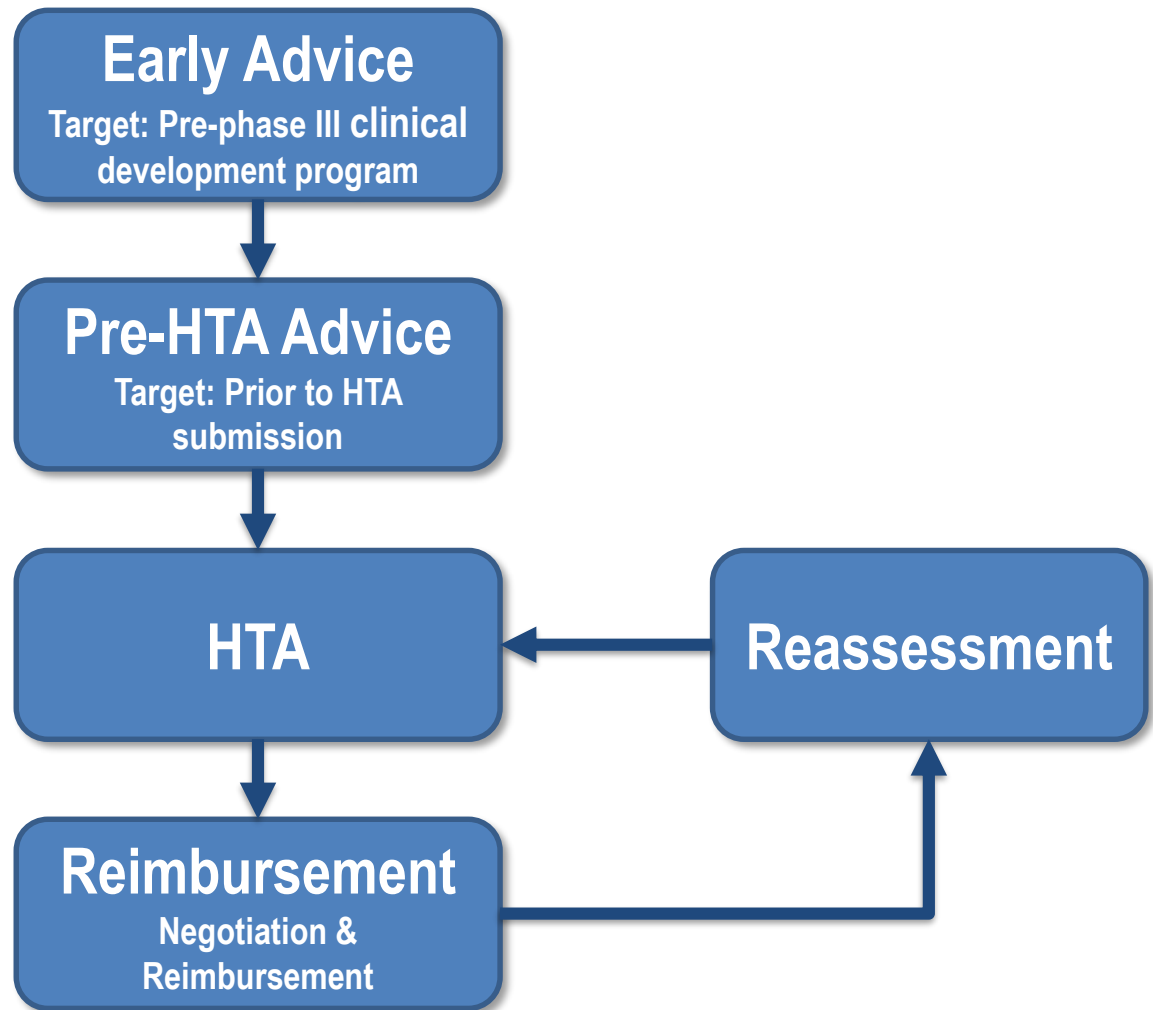
“In God we trust; all others bring valid data.”

— W. Edwards Deming (1900–1993)

The Many Faces of Data Validation



The Many Faces of Data Validation



Data Challenges in Canada

- Different requirements for regulators vs.HTA vs. payers
- No universal health records
- No standards or process for data validation
- Limited data sharing
- No transparent pricing
- No system for conditional reimbursement/reassessment

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