Health Technology Assessment in Canada: A CADTH Perspective

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IQWiG in Dialogue 2017
June 16, 2017

CADTH

The Evolving Role of Health Technology Assessment in Canada: A CADTH Perspective

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Canada's Health Care System

- Distributed. Delegated.
- 10 provinces, 3 territories
- Regulation of drugs and medical devices:
  - Federal Government (Health Canada)
- Delivery:
  - Provincial/Territorial Government
  - Some decisions further delegated to regional & local
- Payment:
  - Universal public coverage for hospital and physician services, including in-patient drugs, medical devices and procedures

CADTH

is an independent, not-for-profit organization responsible for providing Canada's health care decision-makers with objective evidence about the optimal use of drugs and medical devices.

Disclosure

- CADTH is funded by the Federal, Provincial, and Territorial ministries of health.
- CADTH receives application fees (paid by pharmaceutical companies) for three programs:
  - CADTH Common Drug Review (CDR)
  - CADTH pan-Canadian Oncology Drug Review (pCODR)
  - CADTH Scientific Advice

Our Programs and Services

DRUG REIMBURSEMENT RECOMMENDATIONS

- CADTH Common Drug Review (CDR)
- CADTH pan-Canadian Oncology Drug Review (pCODR)

HEALTH TECHNOLOGY MANAGEMENT PROGRAM

- Rapid Response Service
- Health Technology Assessment Service
- Optimal Use Service
- Environmental Scanning
- Horizon Scanning

OTHER PROGRAMS AND SERVICES

- Scientific Advice

KNOWLEDGE MOBILIZATION AND LIAISON OFFICERS

- Located in jurisdictions across Canada
- Understand the needs and priorities of local decision-makers
- Provide advice and tools to help turn evidence into policy and practice

https://www.cadth.ca/about-cadth/what-we-do/products-services

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Key Messages

1. Let’s get serious about patient engagement.

2. Real-world evidence is the next frontier.

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Patient Engagement in HTA

Relevance

Patients have knowledge, perspectives and experiences that are unique and contribute to essential evidence for HTA.

Fairness

Patients have the same rights to contribute to the HTA process as other stakeholders and have access to processes that enable effective engagement.

Legitimacy

Patient involvement facilitates those affected by the HTA recommendations/decision to participate in the HTA; contributing to the transparency, accountability and credibility of the decision-making process.

Equity

Patient involvement in HTA contributes to equity by seeking to understand the diverse needs of patients with a particular health issue, balanced against the requirements of a health system that seeks to distribute resources fairly among all users.

Capacity building

Patient involvement processes address barriers to involving patients in HTA and build capacity for patients and HTA organizations to work together.

HTAi Patient & Citizen Involvement Interest Group

http://www.htai.org/interest-groups/patient-and-citizen-involvement.html

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Importance of Patient Input for CADTH

- HTA recommendations will ultimately affect patients for whom the technology is intended
- Only patients and their family/caregivers have
  - day-to-day lived experience with the disease or condition
  - direct experience with currently available treatments (if applicable) and possibly experience with the technology being reviewed
- Patients and their caregivers can provide **their perspectives** on the most important considerations and outcomes for a new technology

CADTH Patient Engagement Team

- **Tammy Clifford,** Chief Scientist & VP, Evidence Standards
- **Ken Bond,** Director, Patient Engagement and International Affairs
- **Sarah Berglas,** Patient Engagement Officer
- **Tamara Rader,** Patient Engagement Officer
- **Helen Mai,** Policy & Strategy Advisor
- **Laura Weeks,** Scientific Advisor

How CADTH Engages Patients

- Public/patient members sit on Board and committees
- *Patient groups provide input to drug and* ***medical device reviews***
- Patient input to early dialogue with industry
- Patient Liaison Forum with umbrella patient groups
- Annual broad consultation sessions
- Annual CADTH Symposium is “Patients Included”
- “Open” Call for Topics

CADTH's Work on Medical Devices*

- In scope:
  - Devices
  - Procedures (medical, dental, surgical)
  - Tests (predictive, diagnostic)
  - Programs (screening programs, pathways of care)

- Currently out of scope:
  - Health human resources/scopes of practice
  - Regenerative medicines
  - Vaccines
  - Social services
  - "Apps"

CADTH's Medical Devices Portfolio

- **Horizon Scans**
  - New and emerging technologies likely to have a significant impact on health care in Canada
- **Environmental Scans**
  - Current practice across Canada, or internationally
- **Rapid Response**
  - Rapid assessments of the evidence on focused research questions
- **HTA**
  - Comprehensive assessments of clinical, economic, ELSI, patient preferences & implementation implications
- ***Optimal Use***
  - *HTA plus expert committee recommendation*

https://www.cadth.ca/about-cadth/what-we-do/products-services

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CADTH Medical Devices Expert Committee

- Health Technology Expert Review Panel (HTERP)
- Membership
  - Chair and 6 core members
    - 3 clinicians (2 physicians, 1 nurse)
    - 1 epidemiologist
    - 1 economist (Chair)
    - 1 ethicist
    - *1 public member*
  - Project-specific expert members
- Develop recommendations (non-binding)

HTERP Deliberative Framework	
Framework Domain	**Information / Element(s)**
Background / Context	• Audience; issue and policy question(s)
Needs	• Background on health condition • Size of affected population • Availability of alternatives
Benefits	• Efficacy • Clinical effectiveness • Impact on patient-centred outcomes • Impact on clinical management • Non-health benefits (e.g. patient autonomy, dignity)
Harms	• Safety
Patient Preferences	• Acceptability of health technology by the patient
Economic Impact	• Cost-effectiveness • Infrastructure support costs • Budget impact
Implementation	• Integration of technology into existing workflow • Training / competency requirements • Repair and maintenance
Legal	• Legal impacts
Ethics	• Consistent with Canadian ethical values
Environmental Impact	• Environmental impact of health technology

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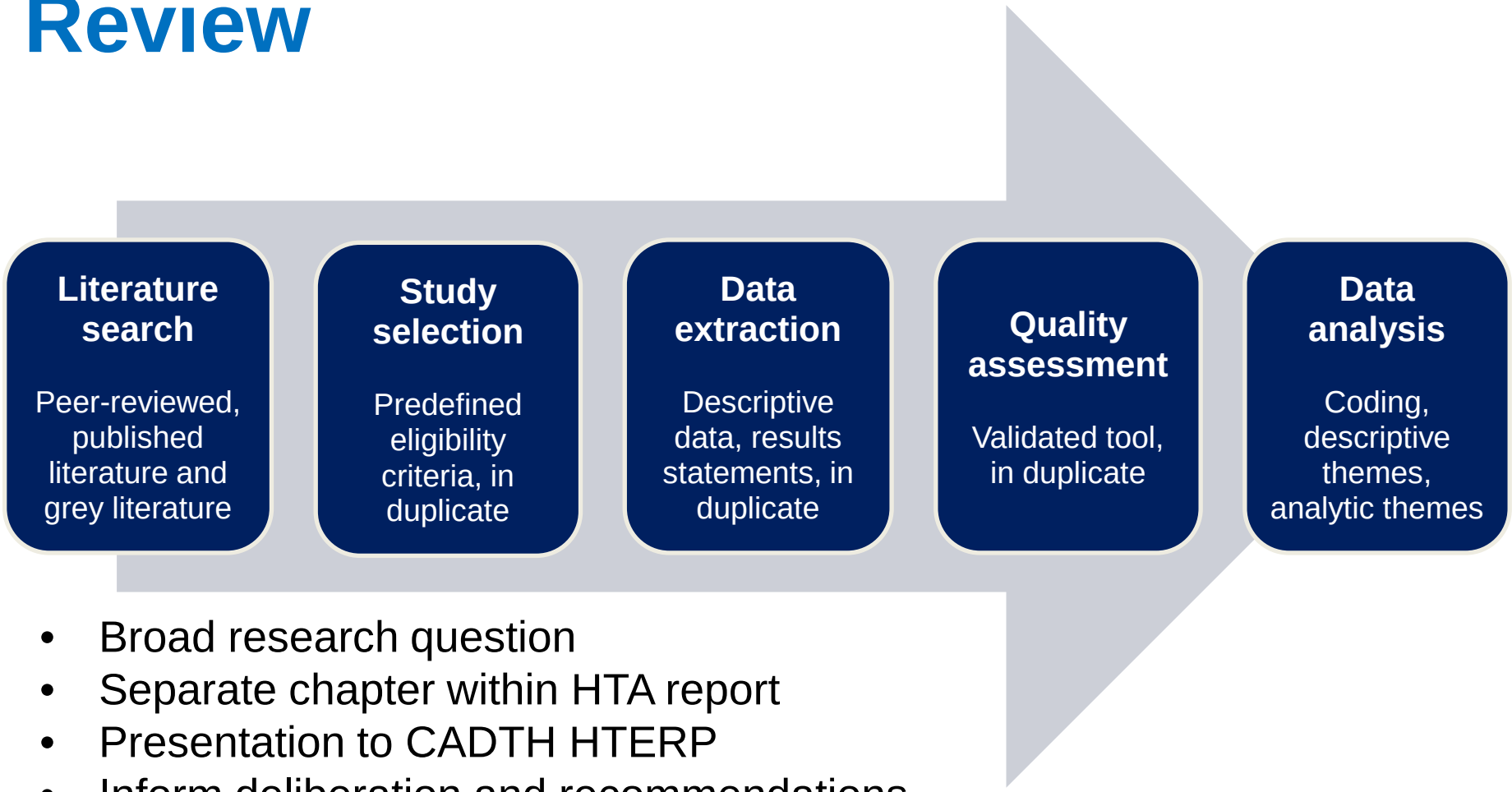
Patient Perspectives & Experiences

"It would be nice if all of the data which sociologists require could be enumerated because then we could run them through IBM machines and draw charts as the economists do. However, **not everything that can be counted counts, and not everything that counts can be counted."**

William Bruce Cameron

CADTH Approach: Systematic Review



- Broad research question
- Separate chapter within HTA report
- Presentation to CADTH HTERP
- Inform deliberation and recommendations

Example: Interventions for the Treatment of Obstructive Sleep Apnea in Adults

Policy Question

What is the optimal use of PAP devices, EPAP valves, OAs, surgical interventions, and lifestyle modifications for the treatment of OSA in adults?

EPAP = expiratory positive air pressure; OA = oral appliance; OSA = obstructive sleep apnea; PAP = positive airway pressure

HTA Research Questions

1. What are the **clinical effectiveness**, comparative clinical effectiveness, and **safety** of PAP devices, EPAP valves, oral appliances, surgical interventions, and lifestyle modifications for the treatment of OSA in adults?

2. What are the **clinical effectiveness**, comparative clinical effectiveness, and **safety** of PAP devices, EPAP valves, oral appliances, surgical interventions, and lifestyle modifications for the treatment of OSA in adult patients with different OSA severity (i.e. mild, moderate, severe)?

3. What are the **clinical effectiveness**, comparative clinical effectiveness, and **safety** of interventions for the treatment of OSA in adult patients with or without comorbidities (e.g. obesity, hypertension, diabetes?)

4. What is the **cost-effectiveness** of PAP devices, EPAP valves, oral appliances, surgical interventions, and lifestyle modifications for the treatment of OSA in adults?

5. What are the **experiences and perspectives** of adult patients, their family members, and their caregivers regarding PAP devices, EPAP valves, oral appliances, surgical interventions, and lifestyle modifications for the treatment of OSA in adults?

6. What **ethical** issues are raised by providing PAP devices, EPAP valves, oral appliances, surgical interventions, and lifestyle modifications for the treatment of OSA in adults? How should these issues be addressed?

7. What are some of the **implementation** issues associated with PAP devices, EPAP valves, oral appliances, surgical interventions, and lifestyle modifications for the treatment of OSA in adults?

8. What are some potential **environmental** impacts PAP devices, EPAP valves, oral appliances, surgical interventions, and lifestyle modifications for the treatment of OSA in adults?

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Analytic Theme	Descriptive Category
A range of characteristics and factors influence whether people seek and initiate OSA treatment.	Motivation
	Expectations and Attitudes
	Information Needs
	Patient Characteristics
	Impact on Lifestyle and Cost
Interventions for OSA require adaptation to daily routines and relationships. Some patients are able to integrate these interventions into their life and experience benefits, while others are unable to do so.	Experienced Benefits
	Comfort and Side Effects
	Impact on Self and Relationships
	Presence of Support
	Information Needs
	Adaptation and Problem Solving
	Psychological Impact

What Do these Syntheses Add?

- Understanding of how a technology is used, or interacts, with patients in their daily life
  - Impact on effectiveness, feasibility, adherence
  - Outcomes of importance, and meaning of outcomes
  - Direct and indirect, intended and unintended outcomes
- Provide insights into economic models
- Identify when patient choice is important
- Rationale to support recommendations
- Implementation considerations

Lessons Learned

Role of PPE reviews in all HTAs

- When is it more, or less, important?

Earlier in the HTA process

- To inform other assessment aspects

Rapid reviews

- On request of some customers
- Development of appropriate methods

Balancing pragmatism and idealism

- Ideal methods versus what is feasible

Improve understanding

- What is qualitative research?
- Special skills and resources

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Challenges & Opportunities

- Ensuring meaningful engagement
  - Not just ‘ticking the box’
- Clarity in language
  - Patients vs public vs citizen
  - Engagement vs involvement vs input
- Clarity in purpose
  - For what goal(s), at what stage(s) of HTA process to have most impact
- Burden
- Representativeness

Key Messages

1. Let’s get serious about patient engagement.

2. Real-world evidence is the next frontier.

Incorporating Real-World Evidence into Assessments

- Adaptive pathways and conditional approvals
- Using registries and “big data”
  - Need for analytic capacity
- Requires flexible reimbursement models
  - Managed-entry schemes and dynamic pricing

Adaptive Pathways – Key Initiatives

EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

MITNEWDIGS

NEW Drug **D**evelopment Parad**IG**m**S** Initiative

imi innovative medicines initiative

ADAPTSMART

Real-World Evidence Generation

HEALTH ECONOMICS
Health Econ. **23**: 379–383 (2014)
Published online in Wiley Online Library (wileyonlinelibrary.com). DOI: 10.1002/hec.3034

EDITORIAL

BREAKING THE ADDICTION TO TECHNOLOGY ADOPTION

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ABSTRACT

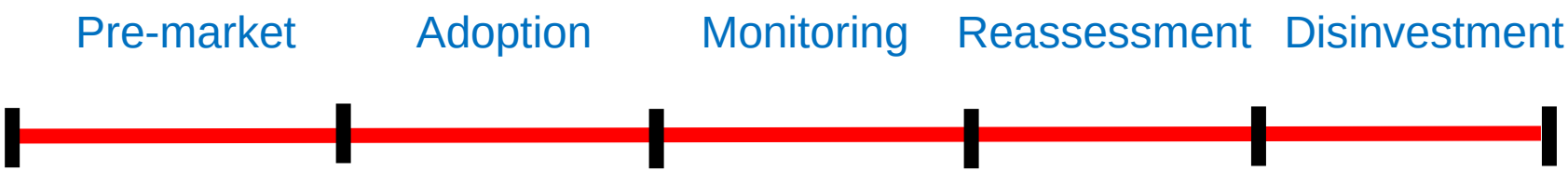
A major driver of cost growth in health care is the rapid increase in the utilisation of existing technology and not simply the adoption of new technology. Health economists and their health technology assessment colleagues have become obsessed by technology adoption questions and have largely ignored 'technology management' questions. Technology management would include the life-cycle assessment of technologies in use, to assess their real-world performance; and monitoring of

Our argument is that, in order to achieve the goals of efficiency and equity through technology use, much greater analytic emphasis is required on the technology management issue, with analysts breaking out of the adoption 'addiction'. This issue will grow more and more in importance as entities, such as clinical care groups

1. BACKGROUND

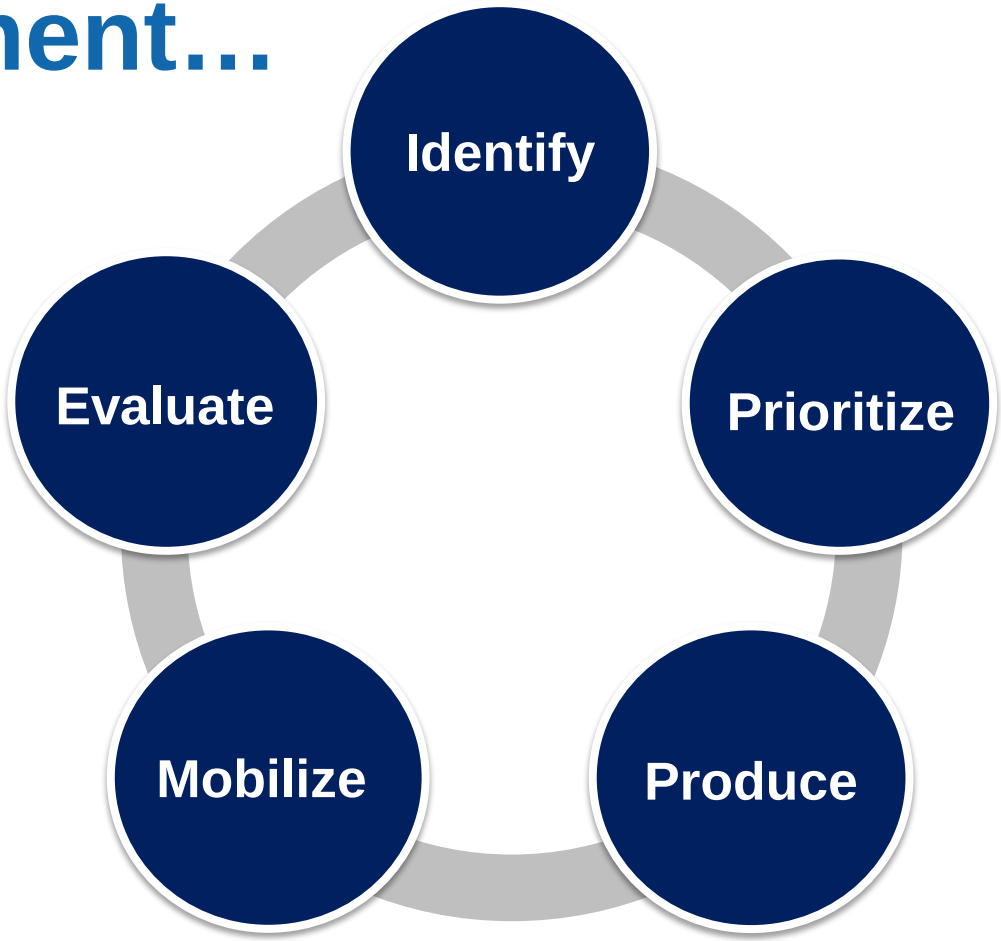
The focus of this paper is healthcare technology (drugs, devices, procedures and screening) and, specifically, its adoption and use in the system. Our premise is that health economists and their colleagues in the health technology assessment (HTA) 'industry' have become obsessed by adoption questions – that is, should a new technology be available for routine use in the healthcare system? – and have largely ignored the 'technology management' questions – that is, once in the system, how do we ensure cost-effective utilisation?

Real-World Evidence

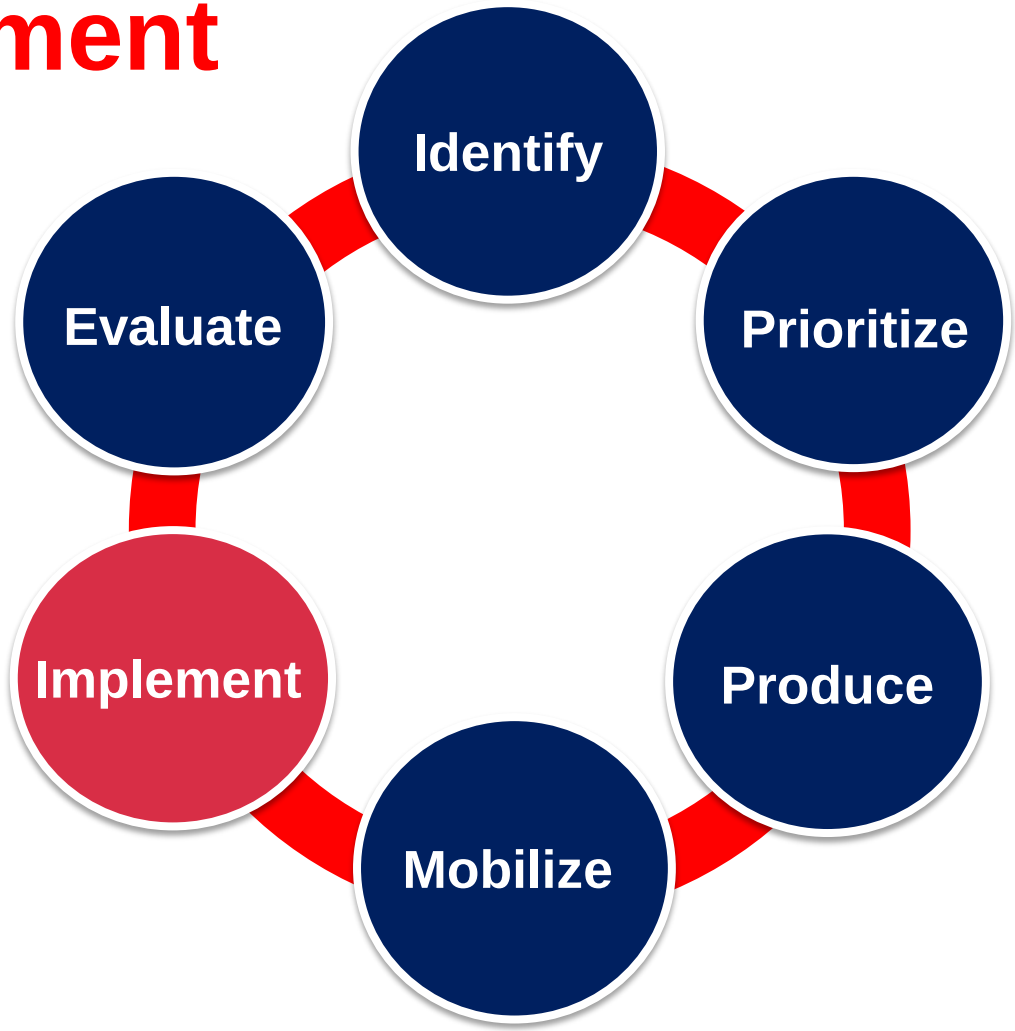


Assessment of real-world performance
over technology life cycle

Moving from Health Technology Assessment…



… to Health Technology Management



2018 is going to be a big year for HTA in Canada

Halifax, NS

2018 CADTH Symposium

April 15 to 17, 2018

cadth.ca/symposium2018

Vancouver, BC

HTAi 2018 Annual Meeting

June 1 to 5, 2018

htai.org

Two world class Health Technology Assessment conferences — one on the west coast, one on the east coast.

CADTH Evidence Driven.

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