4th Annual Knowledge to Policy Day

Early Health Technology Assessment

May 29, 2013
Casa Loma
1 Austin Terrace
Toronto, Ontario

www.theta.utoronto.ca

Outline

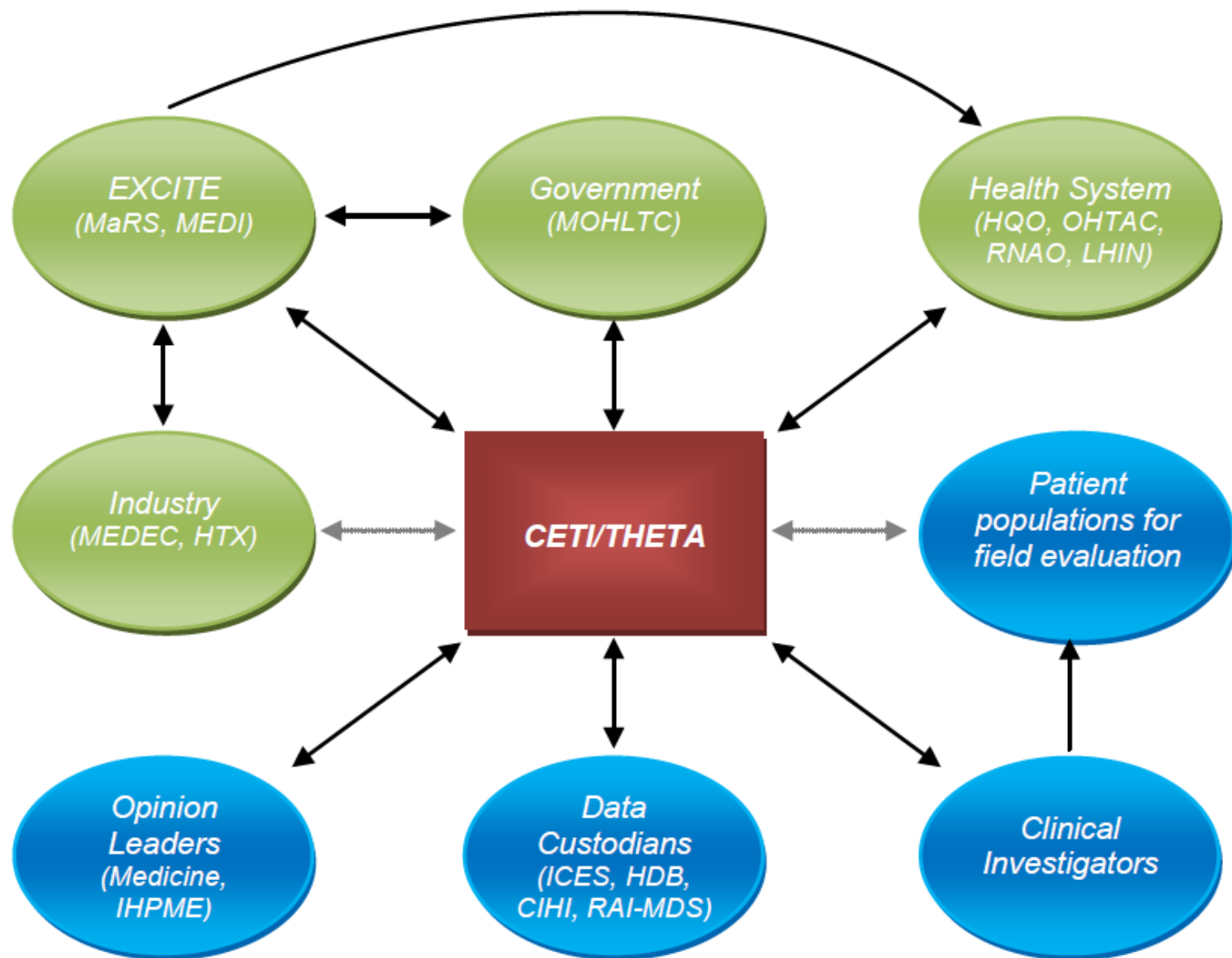- Who we are

- What is HTA, early HTA

- Outline of the day...

- Established July, 2007

- Funded by Health Quality Ontario, and works in partnership with:
  - Institute of Health Policy, Management and Evaluation, University of Toronto
  - Leslie Dan Faculty of Pharmacy
  - University Health Network
  - Cancer Care Ontario

- Our research areas include:
  - Biostatistics and Bayesian Methods
  - Costing and Cost Effectiveness Analysis
  - Evidence Synthesis
  - Field Evaluations – pragmatic trials
  - Health Policy Modelling
  - Health Utility and Quality of Life

THETA- Our Mandate

- **Service:** Methods center for HQO and EXCITE

- **Support/Consulting:** Provide methods support

- **Capacity / Training:** Enhance capacity to perform and review health technology assessments.

- **Academic:** Advance the methods and science of Health Technology Assessment

EXCITE (MaRS, MEDI) ↔ Government (MOHLTC)

Health System (HQO, OHTAC, RNAO, LHIN)

Industry (MEDEC, HTX)

CETI/THETA

Patient populations for field evaluation

Opinion Leaders (Medicine, IHPME)

Data Custodians (ICES, HDB, CIHI, RAI-MDS)
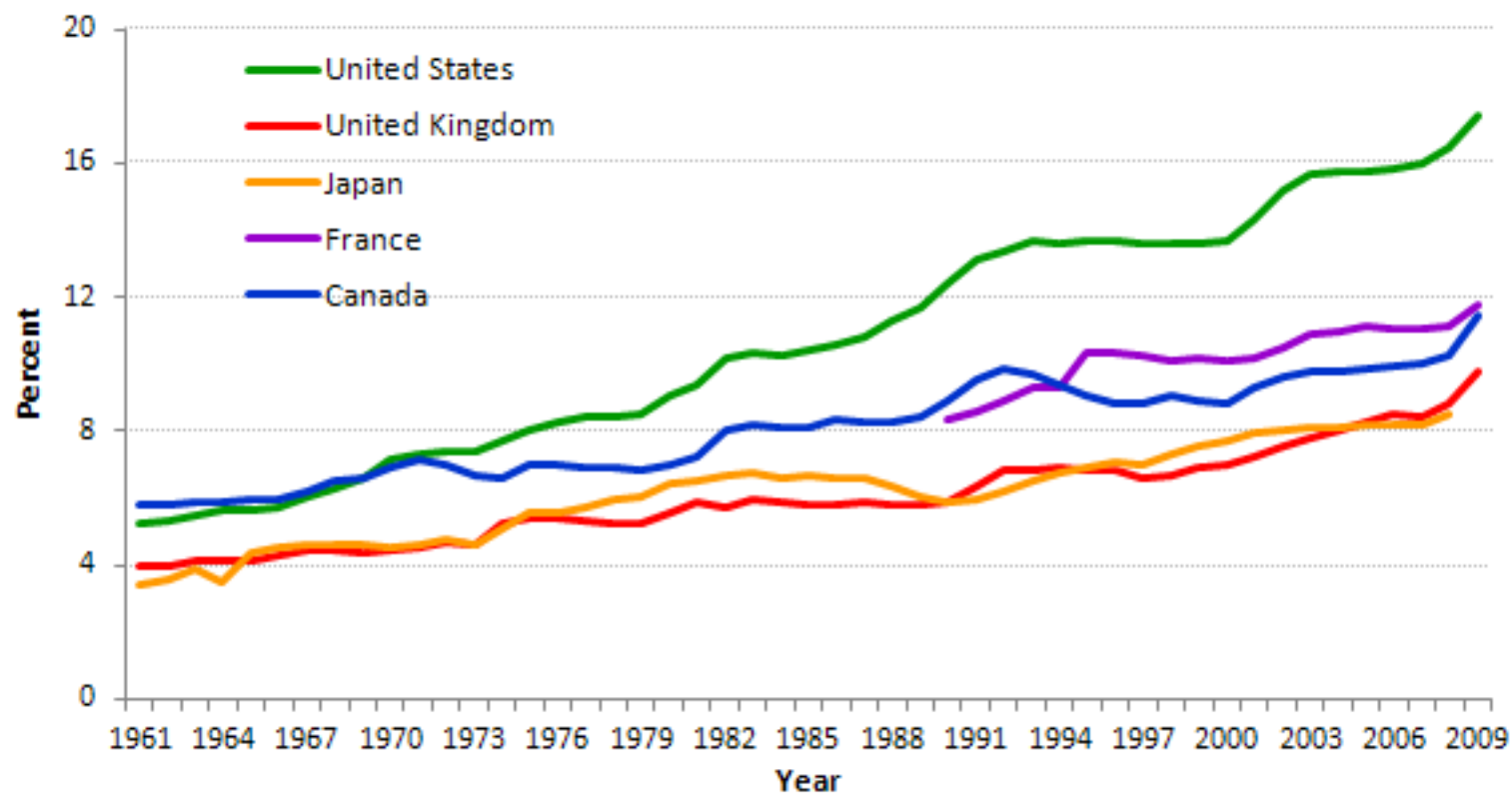
Clinical Investigators

Centre for Evaluation of Technology Innovation; **CIHI** – Canadian Institute for Health Information; **EXCITE** – Excellence in Clinical Innovation and ...ogy Evaluation; **HDB** – Health Data Branch; **HQO** – Health Quality Ontario; **HTX** – Health Technology Exchange; **ICES** – Institute for Clinical Eval... ...s; **IHPME** – Institute of Health Policy, Management and Evaluation; **LHIN** – Local Health Integration Network; **MEDEC** – Canada's Medical Techno... ...nies; **MEDI** – Ministry of Economic Development and Innovation; **MOHLTC** – Ministry of Health and Long-Term Care; **OHTAC** – Ontario Health Te... ...y Committee; **RAI-MDS** – Resident Assessment Instrument-Minimum Data Set; **RNAO** – Registered Nurses Association of Ontario. Green ovals in...
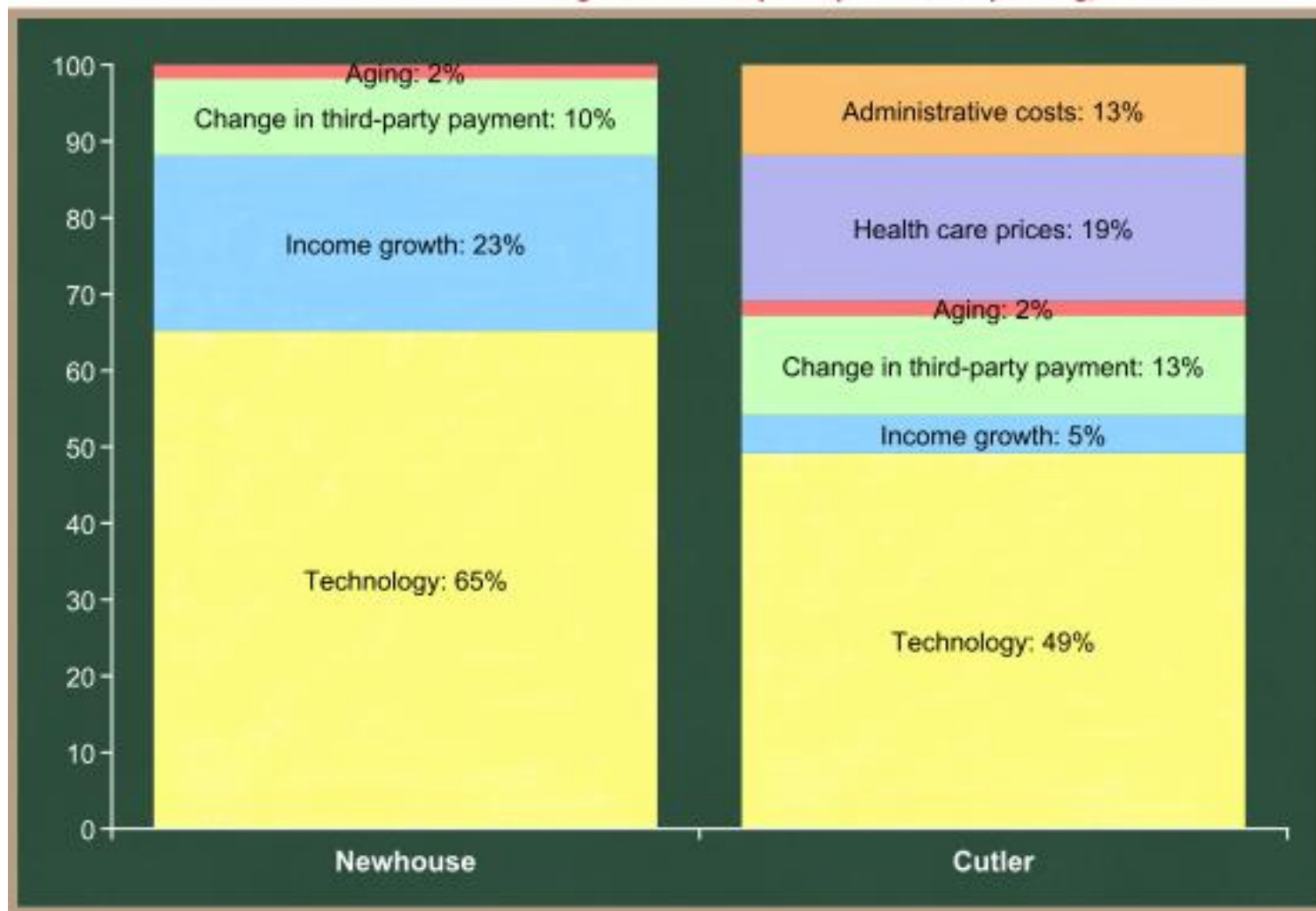
Why HTA?

- Developed countries faces slow growth and ongoing deficits in the face of increasing health care costs.

- Technology
  - accounts for 50% of the increase over the past 50 years.
  - saves lives and drives growth and employment.

Chart 2. Health care expenditures as percent of GDP, selected countries, 1961–2009

Source: Organisation for Economic Co-Operation and Development

Sources of health cost growth in the U.S.
Contributions of selected factors to growth in real per capita health spending, 1940-90

HTA: Definition

Health Technology Assessment
is a <u>multi-disciplinary</u> field of <u>policy analysis</u> that examines the medical, economic, social and ethical implications of the incremental value, diffusion and use of a medical technology in health care.

It is intended to provide a <u>bridge</u> between the world of <u>research</u> and the world of <u>decision-making</u>.

Key paradigms

- Evidence based medicine

- Economic evaluation/ decision science

- Social science/ bioethics

Key elements

- Evidence review
  - (e.g. Meta-analysis)

- Cost effectiveness analysis

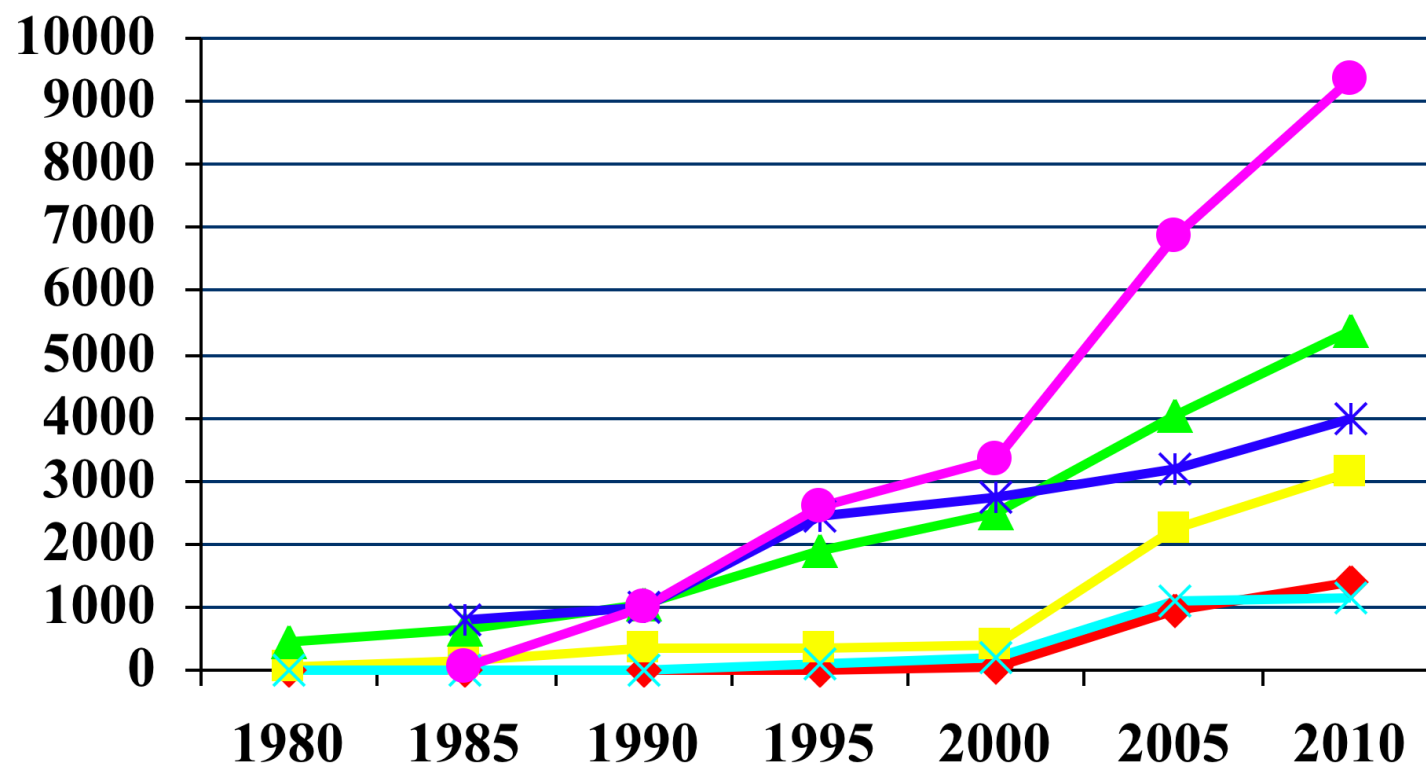- Social, legal, ethical, preferences, patients perspectives

40 years on...

- HTA appears to be healthy!

Growing number of …

- Academic societies:
  - HTAi, ISPOR, iHEA, SMDM, CAPT, ISOQOL

- Journals
  - Pharmacoeconomics, Value in Health, Int J Tech Assess Hlth, Medical Care, Cost Eff ResAll, Health Econ, Health Tech Assess

Annual publications by MESH heading

Legend:
- HTA (red)
- Technology assessment (yellow)
- Economic evaluation (green)
- Pharmacoeconomics (cyan)
- Costs and Cost benefit (blue)
- Decision analysis (magenta)

X-axis: 1980, 1985, 1990, 1995, 2000, 2005, 2010

Y-axis: 0 to 10000

Growing number of …

- Health technology assessment agencies

  - INAHTA – 52 agencies,
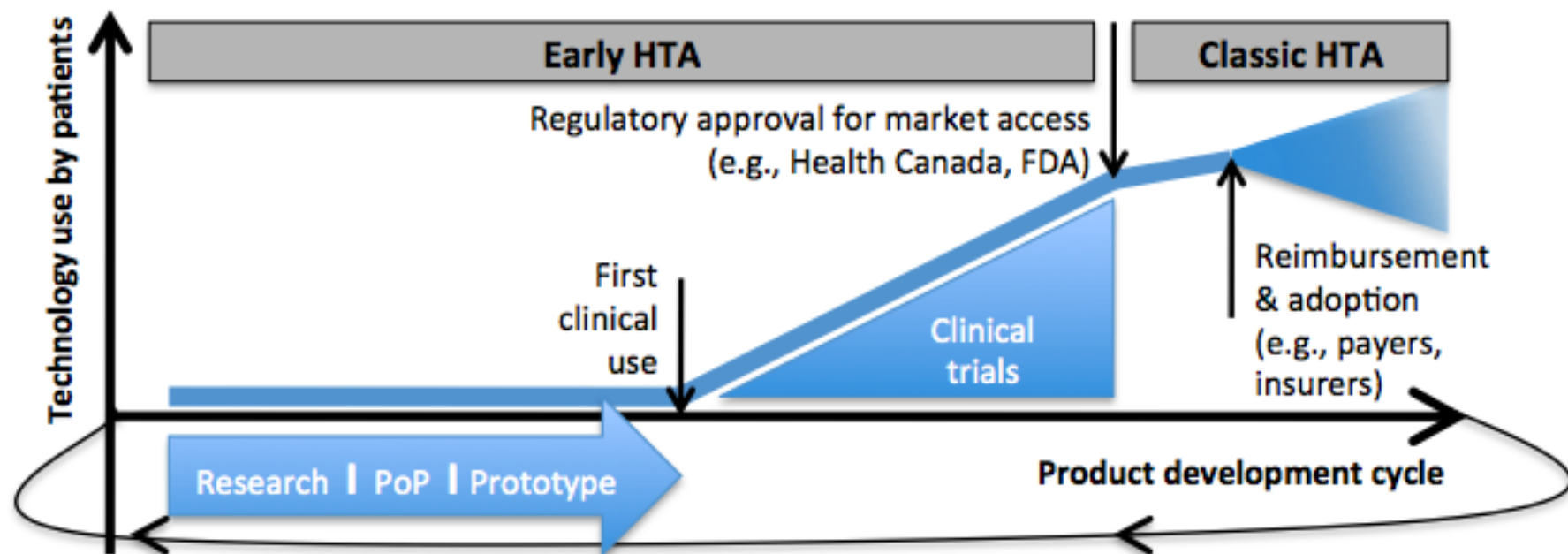   - 29 member countries

INAHTA members

"Classic" HTA faces government (payer)

- thus seen as a
    - *brake on innovation* by the private sector

    - *barrier to access* by consumers.

EARLY & CLASSIC HTA IN TECH DEVELOPMENT

"Early HTA"- a new model

- Scientists, payers, and innovators work together early in the development process.

- This ensures that the clinical evidence will meet the needs of payers (e.g. Ministries of Health) and regulators (e.g.Health Canada) when it is brought to market, and is consonant with the needs of users.

Early HTA Tools

- ## 1. Context analysis-
  - Understand political, organizational, social context of the enterprise
- Policy analysis
- Case studies
- Bibliometrics
- Text mining
- Key informant interviews

Early HTA Tools

- 2. Human factors studies
  - Interaction of humans and technology

Early HTA Tools

- 3. Early economic modeling
  - Early look at value proposition
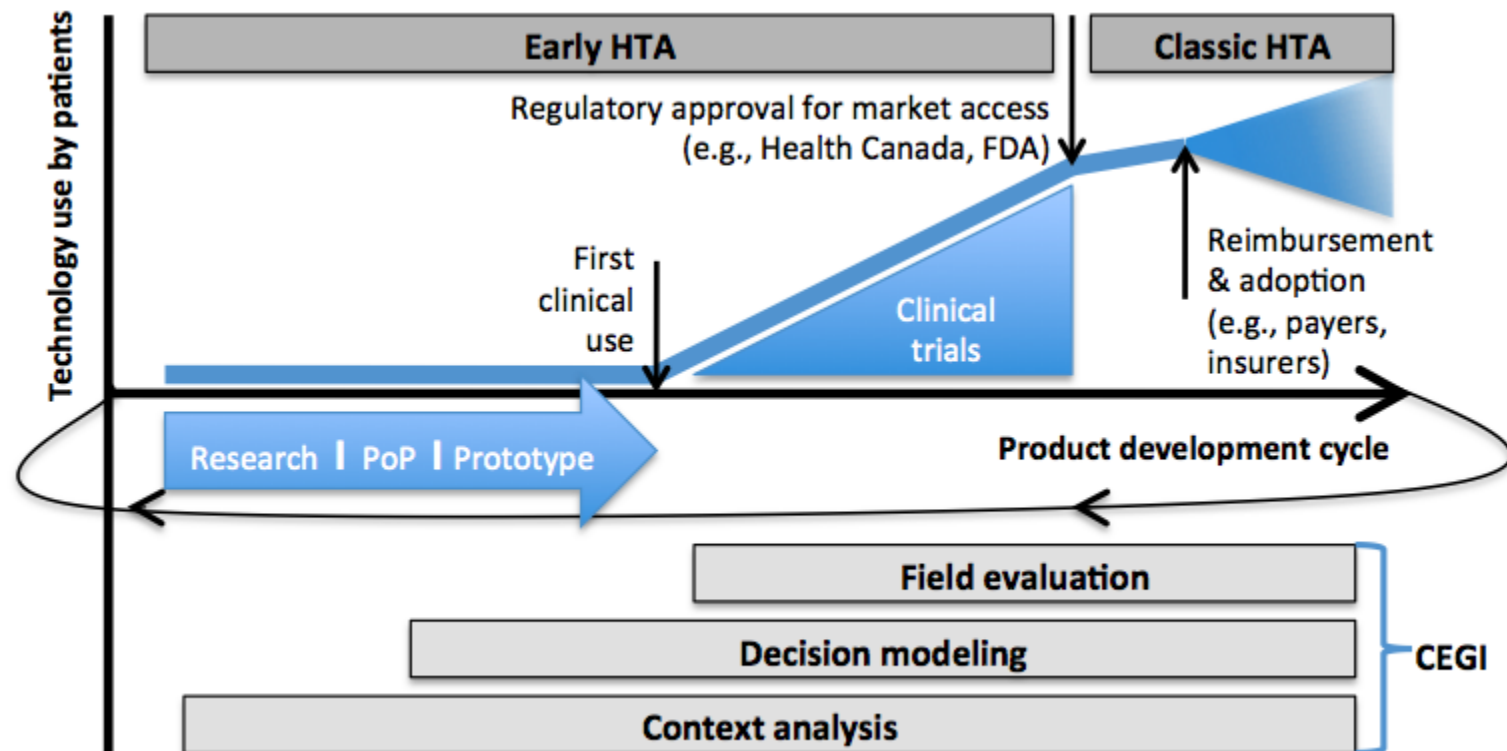 - Guide development and research design

Early HTA Tools

- ## 4. Evidence synthesis
  - Understand evidence landscape
  - Assess congeners/ competitors

Early HTA Tools

- ## 5. Field evaluations
    - ### Real-world effectiveness, safety, utility

Early HTA Tools

- 6. Studies of acceptability, preferences, patient values
  - patient experiences
  - Users' experiences

THE APPLICATION PROCESS

Submission

Applicants complete an application form and submit it to MaRS

Screening

MaRS collaborates with applicants to fine tune the application

Review

The OHTAC Subcommittee reviews the applications and makes recommendations

Selection

The EXCITE Management Board selects and prioritizes the successful candidates

WHO IS INVOLVED

Health Innovators

Health System

MaRS

Academic Hospitals

Government

Industry

Methodological Centres

Purpose

- Share new knowledge

  - Decision makers / Policy makers
  - Innovators, industry partners
  - Scientists
  - Clinicians
  - Patients / citizens

Outline

- Morning:
    - Ontario experience with HTA
        - Keynote: Dr. Les Levin

- Afternoon:
    - International experiences with HTA
        - Keynotes:
            - Dr. Maarten Ijzermann, University of Twente
            - Dr. Julie Barnett, Brunel University

Agenda

8.15 a.m. **Breakfast & Registration**

9.00 a.m. **Welcome & Introduction to Early HTA**

Murray Krahn MD MSc FRCPC, Director, THETA Collaborative

9.30 a.m. **Keynote: Les Levin MB MD FRCP FRCPC**

Chief Scientific Officer, MaRS Excellence in Clinical Innovation and Technology Evaluation (EXCITE); VP, Evidence Development & Standards, Health Quality Ontario

10.00 a.m. **Panel Discussion: Generating Clinical Evidence – Meeting the Needs of Early HTA**

Discussants:

Mohammed Ansari MD MMedSc MPhil, Senior Systematic Review Methodologist, Knowledge Synthesis Group, Ottawa Hospital Research Institute

Jim Bowen BScPhm MSc, Manager, Field Evaluation and Economic Assessment Program, Programs for Assessment of Technology in Health (PATH) Research Institute

Valeria Rac MD PhD, Director of Clinical Research, THETA Collaborative (Moderator)

Patricia Trbovich PhD, Academic Research Lead, Centre for Global eHealth Innovation

11.00 a.m. **Coffee Break**

11.30 a.m. **Panel Discussion: Policy Goals for Early HTA**

Discussants:

John Soloninka P.Eng MBA, President & CEO, The Health Technology Exchange (HTX)

Karen Michell BA MA, Executive Director, Council of Academic Hospitals of Ontario (CAHO)

Bill Mantel, Assistant Deputy Minister, Research and Innovation, Ontario Ministry of Economic Development and Innovation

Karen Greve Young BA MBA, Director, Strategic Initiatives, MaRS Discovery District

Moderator:

Murray Krahn MD MSc FRCPC, Director, THETA Collaborative

12.30 p.m. Lunch

1.30 p.m. Panel Session: Early Economic Evaluation

Keynote: Maarten Ijzerman PhD, Professor of Health Technology & Services Research, University of Twente

Presenter: Ba' Pham PhD(c), Decision Modeler, THETA Collaborative

Discussant: Daria O'Reilly PhD, Director, Field Evaluation & Economic Assessment Program, Programs for Assessment of Technology in Health (PATH) Research Institute

2:45 p.m. Coffee Break

3:15 p.m. Panel Session: Social Sciences and Ethics in Early HTA

Keynote: Julie Barnett PhD, Professor in Health Research, Brunel University

Presenter: Pascale Lehoux PhD, Professor, Department of Health Administration; Researcher, Groupe de Recherche Interdisciplinaire en Santé (GRIS), University of Montreal

Discussant: Fiona Miller PhD, Associate Professor, Institute of Health Policy, Management and Evaluation, University of Toronto

4:30 p.m. Closing Remarks

Fiona Miller PhD, Associate Professor, Institute of Health Policy, Management and Evaluation, University of Toronto

Thank-you!