

# THE GREAT DIVIDE

Tapping into the Health Technology Assessment (HTA) Framework to Formulate a Functional Knowledge Exchange Model

CAHSPR 2009, MAY 13<sup>TH</sup>, 2009

Vivian W. Y. Chan & Arminée Kazanjian  
University of British Columbia

# Acknowledgement

- Kazanjian research team, School of Population and Public Health, UBC
- CIHR Team in Supportive Cancer Care, AQC-83559
- Western Regional Training Centre studentship funded by Canadian Health Services Research Foundation, Alberta Heritage Foundation for Medical Research, Canadian Institutes of Health Research



# Objectives of the Presentation

- To examine some of the theoretical underpinnings of knowledge translation, using Graham et al.'s (2006) Knowledge-to-Action (KTA) framework
- To offer a more functional view of knowledge exchange, drawing mainly from an extended Health Technology Assessment (HTA) framework (Kazanjian, 2004)

Graham, I., Logan, J., Harrison, M. B., Straus, S. E., Tetroe, J., Caswell, W., et al. (2006). Lost in knowledge translation: Time for a map? *Journal of Continuing Education in the Health Professions*, 26(1), 13-24.

Kazanjian, A. (2004). Reflections on the social epidemiologic dimension of health technology assessment. *International Journal of Technology Assessment in Health Care*, 20(02), 167.

# The Great Divide...



# What is Knowledge?

- **Empirically derived**, i.e. research-based (Graham et al., 2006)
- Research is a subset of knowledge (Tetroe, 2007)
- Evidence has **two facets – scientific and colloquial** (Lomas et al., 2005)
- Evidence is conceived as research, clinical experience, patient preference (McCormack et al., 2002)
- **Knowledge hierarchy**: high-quality, methodologically appropriate research are the most accurate evidence, other kinds of information are necessary supplements to or stand-ins for research. (CHSRF, 2005)

# Knowledge-to-Action Process

(Graham et al., 2006)

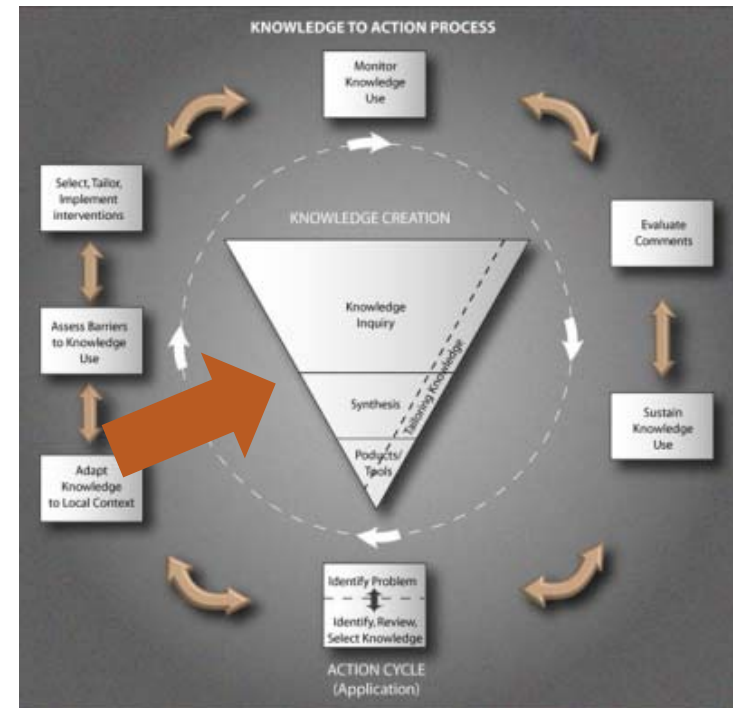
- Researcher-knowledge user dyad
  - ▣ There is a knowledge hierarchy
- Conception: the process of research findings (i.e. research evidence), making its way into practice (i.e. action) in a timely fashion.

## Assumption:



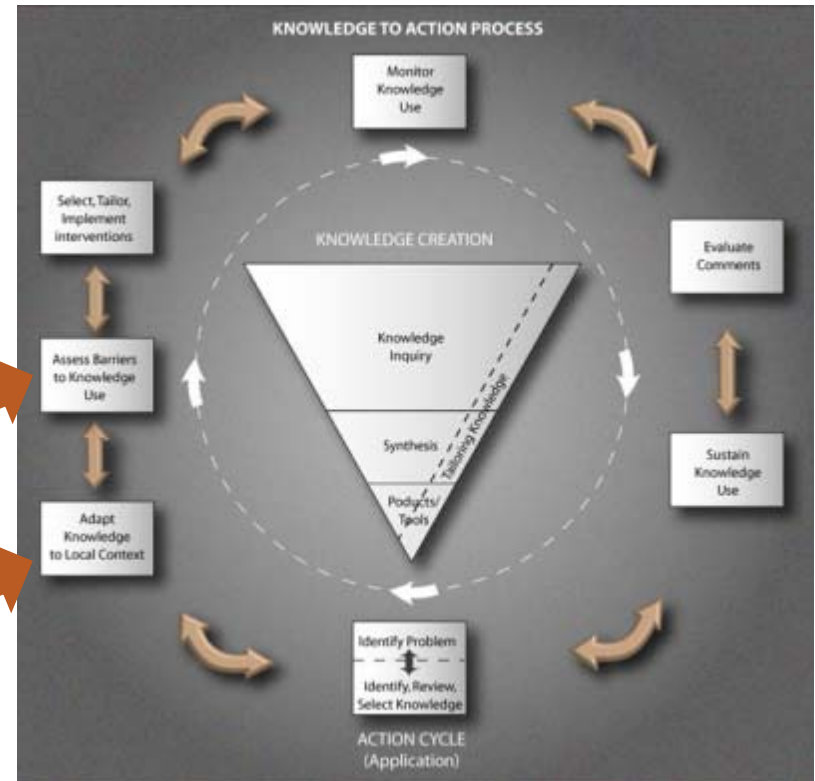
# KTA: Knowledge Creation

- Filtering and tailoring of the research-based knowledge so that the “most useful and valid knowledge is left” (Graham et al., 2006, p. 18).
- It assumes there will be a key piece of knowledge, a tool or product, which can be applied to a problem (e.g. a clinical practice guideline).

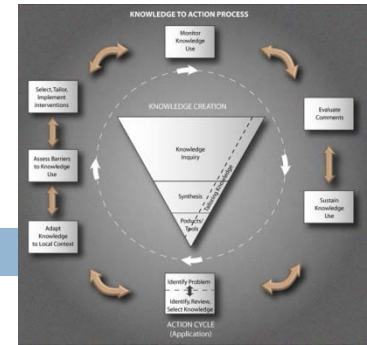


# KTA: Action Cycle

- Adapt knowledge to local context
- Assess barriers & facilitators to knowledge use
- Encourage use of local & external research to improve implementation of intervention



# KTA: Limitations



- It is not clear how other forms of knowledge (e.g. local context) inform the knowledge creation process
- A refined knowledge tool (containing synthesized knowledge) can be rather narrow, static, and inflexible to other applications
  - ▣ i.e. transferability of a piece of synthesized knowledge from one practice setting to another

# Take-home Message



What does it take for Knowledge-to-Action?

**Synthesis AND integration  
of different forms of knowledge**

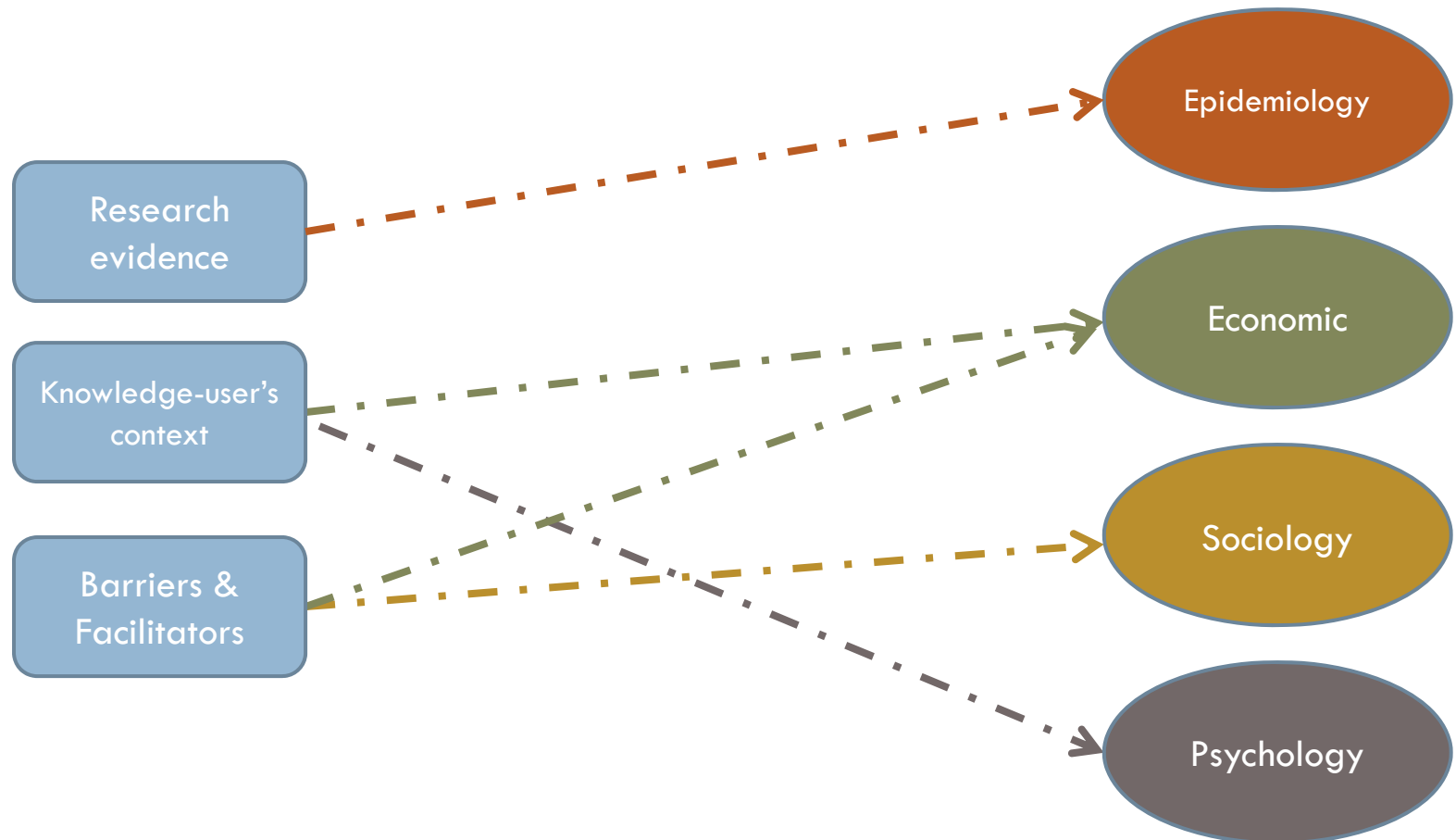
# Knowledge

---

- The fact of knowing a thing, state, etc. either by familiarity gained by experience or acquaintance with a branch of learning

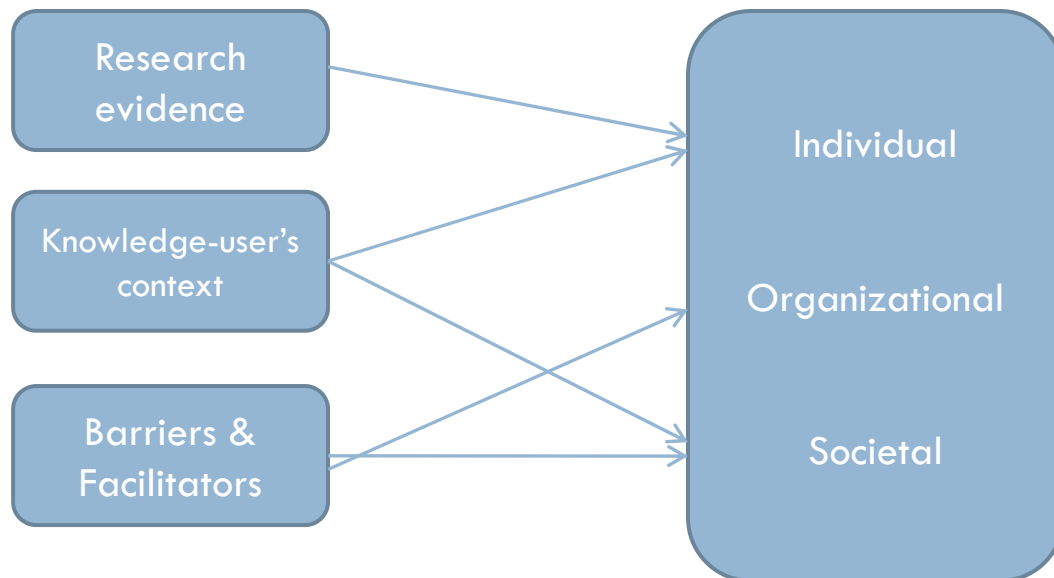
# User & Context Specificity: Unpacking

## □ Dispositional versus Situational



# User & Context Specificity: Abstract Up

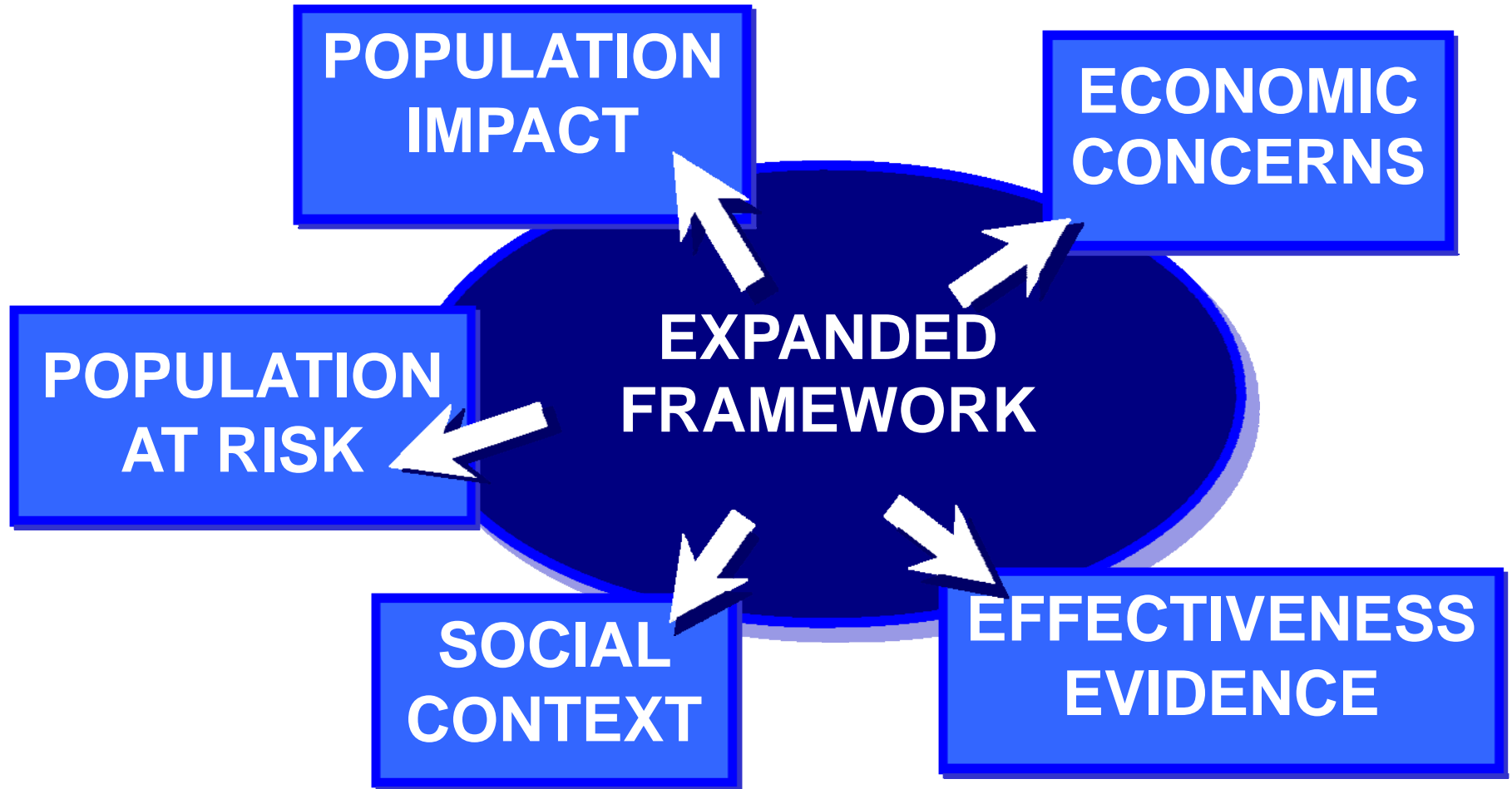
- Actors do not behave and act outside of a social context (Granovetter, 1985).
  - ▣ e.g. clinicians work within a hospital, profession college and hospital regulations govern clinical practice (situated in an institutional setting)



# Health Technology Assessment (HTA) (Kazanjian, 2004)

- A systematic, multi-disciplinary process that looks at the role and consequences of health interventions with a **multi-level focus** and **integrated worldviews**

# The Extended HTA Framework (Kazanjian, 2004)



# Interventions can be...

**Drugs:** e.g., aspirin, beta-blockers

**Biologics:** e.g. vaccines, gene therapies

**Devices, equipment and supplies:** e.g., cardiac pacemakers, CT scanners, diagnostic test kits

**Medical and surgical procedures:** e.g., nutrition counseling, coronary angiography

**Support systems:** e.g., electronic patient record systems, telemedicine systems

**Organizational and managerial systems:** e.g., prospective payment using diagnosis-related groups, alternative health care delivery configurations

(Goodman 2004: 13)

# HTA: Features

## 1. Stakeholders involvement

- ▣ Not just adopters of intervention
- ▣ Includes those who will affect or will be affected by intervention
- ▣ Individuals, organizations, or systems representation
- ▣ Potential stakeholders: policymakers, practitioners, patient & family, community interests, administrators, researchers

## 2. Explanatory Dimensions

- ▣ Reformulate knowledge by social, economic, epidemiological worldviews
- ▣ Loosely formulated by fields of study
- ▣ Opportunity to systematically address & integrate knowledge

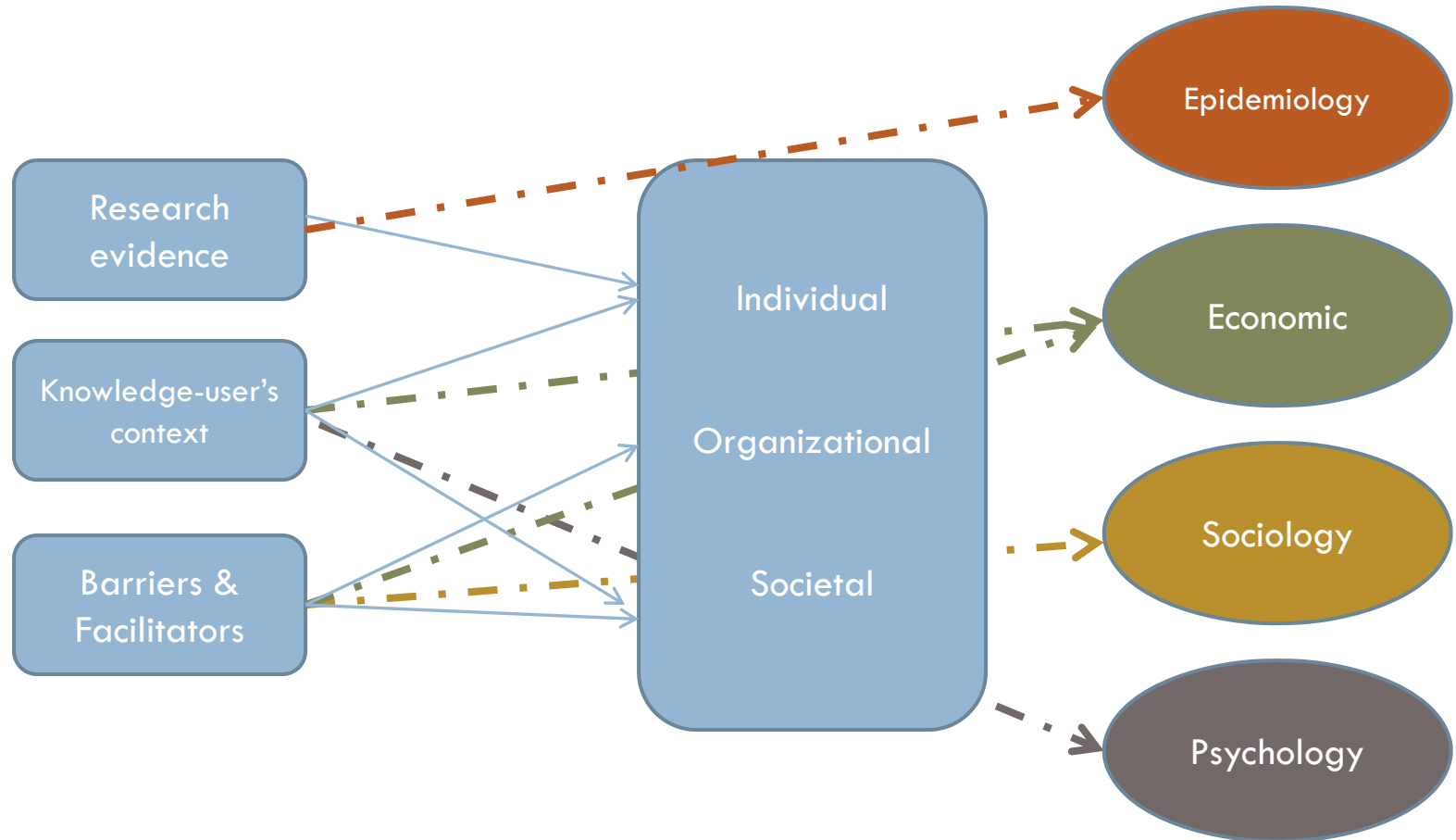
# Stakeholder Engagement

Types of Key Stakeholders	Types of Knowledge Contribution (levels of knowing)
Policymakers	Regulations and laws; political climate; financial big picture (societal)
Practitioners	Clinical (individual); small “p” politics (organizational)
Patient & Family	Social & economical impact (individual)
Community interests	Political; social climate; population impact (+/-) (societal)
Administrators	Formal and informal rules/norms; financial and structural information; small “p” politics (organizational)
Researchers	“Scientific evidence” – e.g. epidemiological, clinical, population health, etc. (individual or societal if population health/public health)

# HTA stimulates Knowledge Exchange

- HTA is a negotiated process
- Community dynamics, institutional interests and hard science interact with and inform each other - by *highlighting the impact on the burden of illness but also the societal and political implications of technological options* (Kazanjian, 2002: 2)

# HTA: Multi-level Focus & Integrated Worldviews



# Take-home Message



What does it take for Knowledge-to-Action?

**Synthesis AND integration  
of all forms of knowledge**

# Thank you

---

Vivian W. Y. Chan

Interdisciplinary Studies Graduate Program, UBC

Vancouver, British Columbia

[vwychan@interchange.ubc.ca](mailto:vwychan@interchange.ubc.ca)

# References

- CHSRF. (n.d.). *Knowledge Exchange*. Retrieved April/29, 2009, from [http://www.chsrf.ca/knowledge\\_transfer/index\\_e.php](http://www.chsrf.ca/knowledge_transfer/index_e.php)
- CIHR. (2009). *About Knowledge Translation*. Retrieved April/29, 2009, from <http://www.cihr-irsc.gc.ca/e/29418.html>
- Goodman, C. (2004). HTA 101 introduction to health technology assessment. (pp. 9-34). National Institutes of Health: United States National Library of Medicine.
- Graham, I., Logan, J., Harrison, M. B., Straus, S. E., Tetroe, J., Caswell, W., et al. (2006). Lost in knowledge translation: Time for a map? *Journal of Continuing Education in the Health Professions*, 26(1), 13-24.
- Granovetter, M. (1985). Economic action and social structure: The problem of embeddedness. *The American Journal of Sociology*, 91(3), 481-510.
- Kazanjian, A. (2002). Health technology assessment: Sustaining equity in health care. *Encyclopedia of life support systems (EOLSS)*
- Kazanjian, A. (2004). Reflections on the social epidemiologic dimension of health technology assessment. *International Journal of Technology Assessment in Health Care*, 20(02), 167.
- Lawrence, P. R., & Lorsch, J. W. (1967). *Organization and environment; managing differentiation and integration*. Boston: Division of Research, Graduate School of Business Administration, Harvard University.

# References con't

- Lomas, J., Culyer, T., McCutcheon, C., McAuley, L., & Law, S. (2005). *Conceptualizing and combining evidence for health system guidance* Canadian Health Services Research Foundation.
- March, J. G., & Simon, H. A. (1958). Cognitive limits on rationality. *Organizations*. New York: Wiley.
- McCormack, B., Kitson, A., Harvey, G., Rycroft-Malone, J., Titchen, A., & Seers, K. (2002). Getting evidence into practice: The meaning of 'context'. *Journal of Advanced Nursing*, 38(1), 94-104.
- Knowledge (n.d.) Oxford English Dictionary. Retrieved April/29, 2009 from <http://dictionary.oed.com/>
- Tetroe, J. (2007). *Knowledge translation at the Canadian Institutes of Health Research: A Primer* National Center for the Dissemination of Disability Research.
- Thompson, J. D. (1967). *Organizations in action; social science bases of administrative theory*. New York: McGraw-Hill.