



FACTOR-INWENTASH
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Evaluating Knowledge Transfer

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Objectives

- Consider the goals and purposes of initiating evaluation of knowledge transfer (EKT)
- Describe a process for evaluating the effectiveness and impact of knowledge transfer
- Participate in EKT exercise relevant to NICE
- Consider benefits and limitations of EKT

Knowledge Transfer

- To ensure research has maximum impact
- To strengthen the relevance of research
- Funders and institutions require it
- Can provide a direct link to consumers

Consumers of KT

- Clients recognize they need more information regarding issues/problems effecting them
- Knowledge transfer has the potential of facilitating more effective consumers of knowledge (Tudgwell, et al., 2007)
- KT is to put the results of rigorous research into the hands of clients

Three KT Models

1. Producer-push model

- Researcher responsible for transferring and facilitating the uptake of knowledge

2. User-pull mode

- Decision makers responsible for identifying and making use of research knowledge

3. Exchange model

- Researchers and decision makers jointly responsible for the uptake of knowledge

(Lavis, et al., 2003)

Evaluating Knowledge Transfer

- Evaluation provides evidence of the effectiveness of the initial and ongoing knowledge investment (money, time, effort, reputation, client faith)
- Tests the suitability of current strategies
- Justifies future expenditure on knowledge transfer
- Provides accountability
- Provides evidence of impact

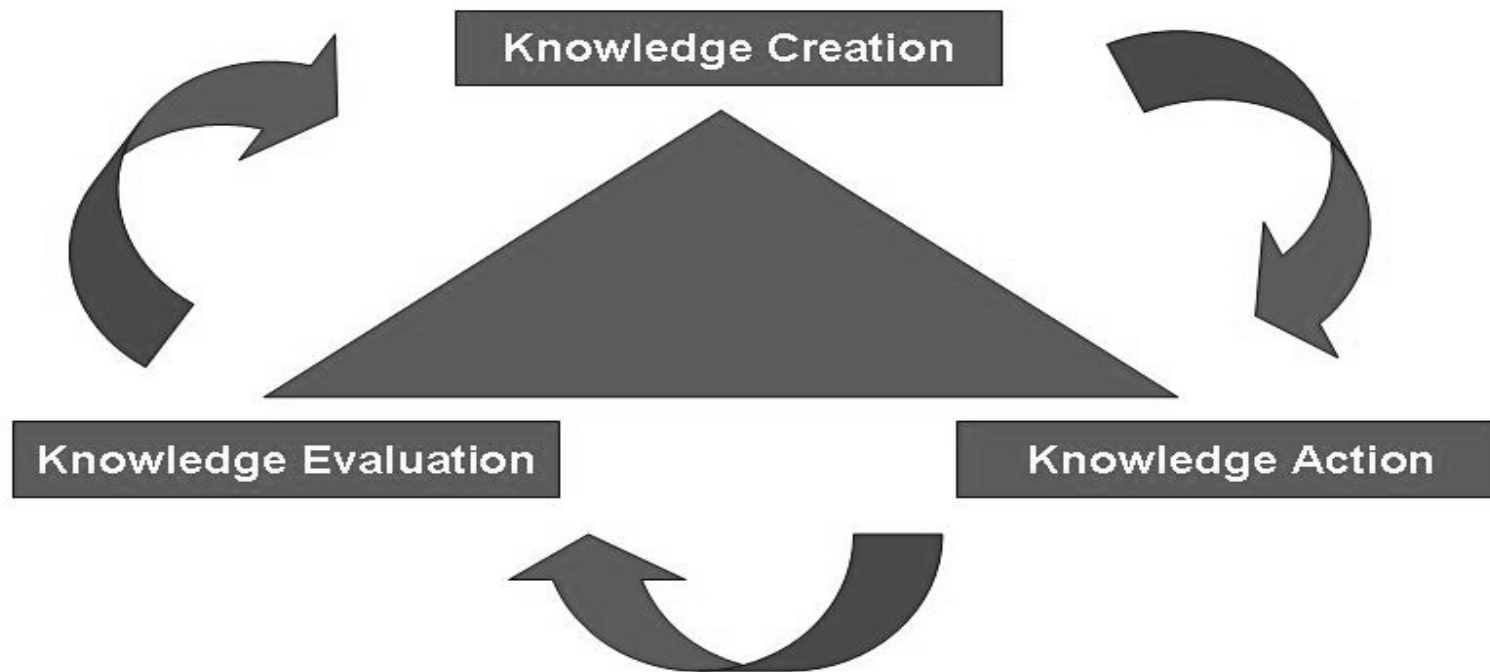
(Debowski, 2005)

Evaluating Knowledge Transfer

- Rapid growth of KT activities with a wide range of strategies
- Little has been documented about KT effectiveness
- Programs that incorporate ongoing evaluation are more aware of what works and what does not

Evaluating Knowledge Transfer

- Framework has three main phases



Knowledge Creation

- Primary or secondary research
- Synthesizing the research
 - Systematic Reviews (e.g. meta-analysis, qualitative synthesis)
 - Rapid Evidence Assessments / Scoping / Conceptual Maps
- Refining research into relevant products / tools for knowledge transfer
 - Evidence-Based Guidelines
 - Consumer-friendly summaries
 - Booklets

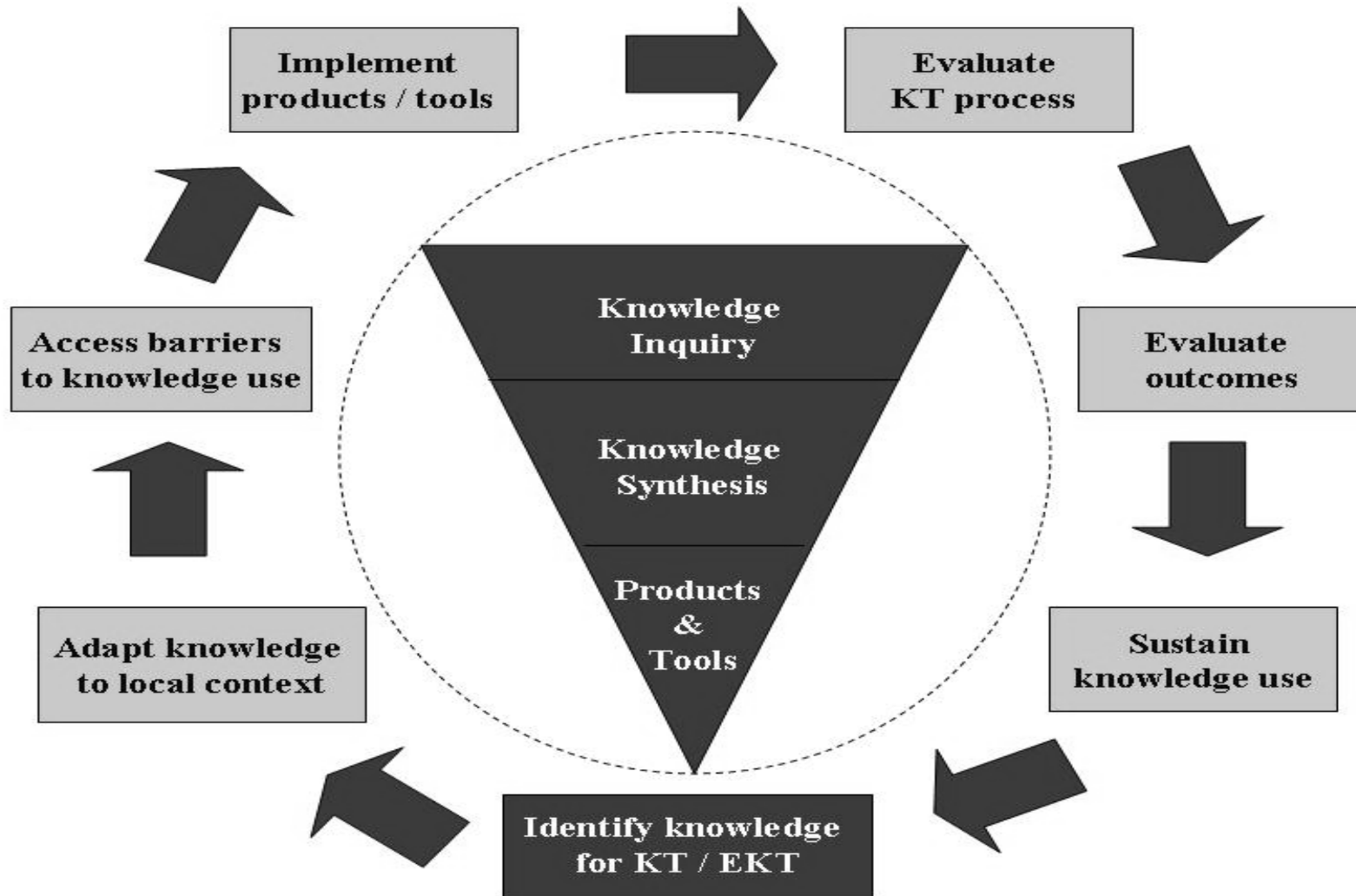
Knowledge Action

- Address the barriers and support needed to implement the products / tools to target audience
- Assess whether products /tools are the best format for the target audience
- Facilitate the awareness and uptake of products / tools by consumers
- Monitor knowledge use

Knowledge Evaluation

- Create goals and objectives for the evaluating
- Decide on desired outcomes
- Identify how to measure desired outcomes
- Complete analysis according to the pre-determined evaluation plan

Evaluating Knowledge Transfer



(Adapted from Graham, Logan, Harrison, et al, 2006; Tugwell, Santesso, O'Connor et al, 2007)

Getting Started

- Determine if systematic reviews have been performed
- Identify stakeholders and include them in all steps
- Create support system to facilitate giving and receiving feedback
- Identify all potential uses of knowledge
- Plan for evaluation at the onset of knowledge transfer

(CHEO, 2006)

Identify Knowledge for KT /EKT

- Interview relevant stakeholders about the kinds of knowledge consumers need
- Identify sources of knowledge based on rigorous accumulation of empirical research
- Consider implications of systematic reviews for target audience

Guiding Questions

1. What message do you want to transfer?
2. To whom should the message be delivered?
3. By who should the message be delivered?
4. How should the message be delivered?
5. With what effect?

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Adapt KT to Local Context

- Integrate scientific evidence with practice / policy experiences and the views, preferences, characteristics and situations of the target audience
- Developing a tailored product by evaluating KT with key stakeholders and then making modifications based on feedback
 - Interviews
 - Focus groups
 - Test pilot

Access Barriers to Knowledge Use

- Planning and executing strategies to actively promote awareness and knowledge uptake
- Barriers may include:
 - Difficult or no access to products / tools
 - Limited time by helping profession to promote products / tools
 - Cultural values, preferences, awareness and resources for relevant audiences (Tugwell et al., 2006)

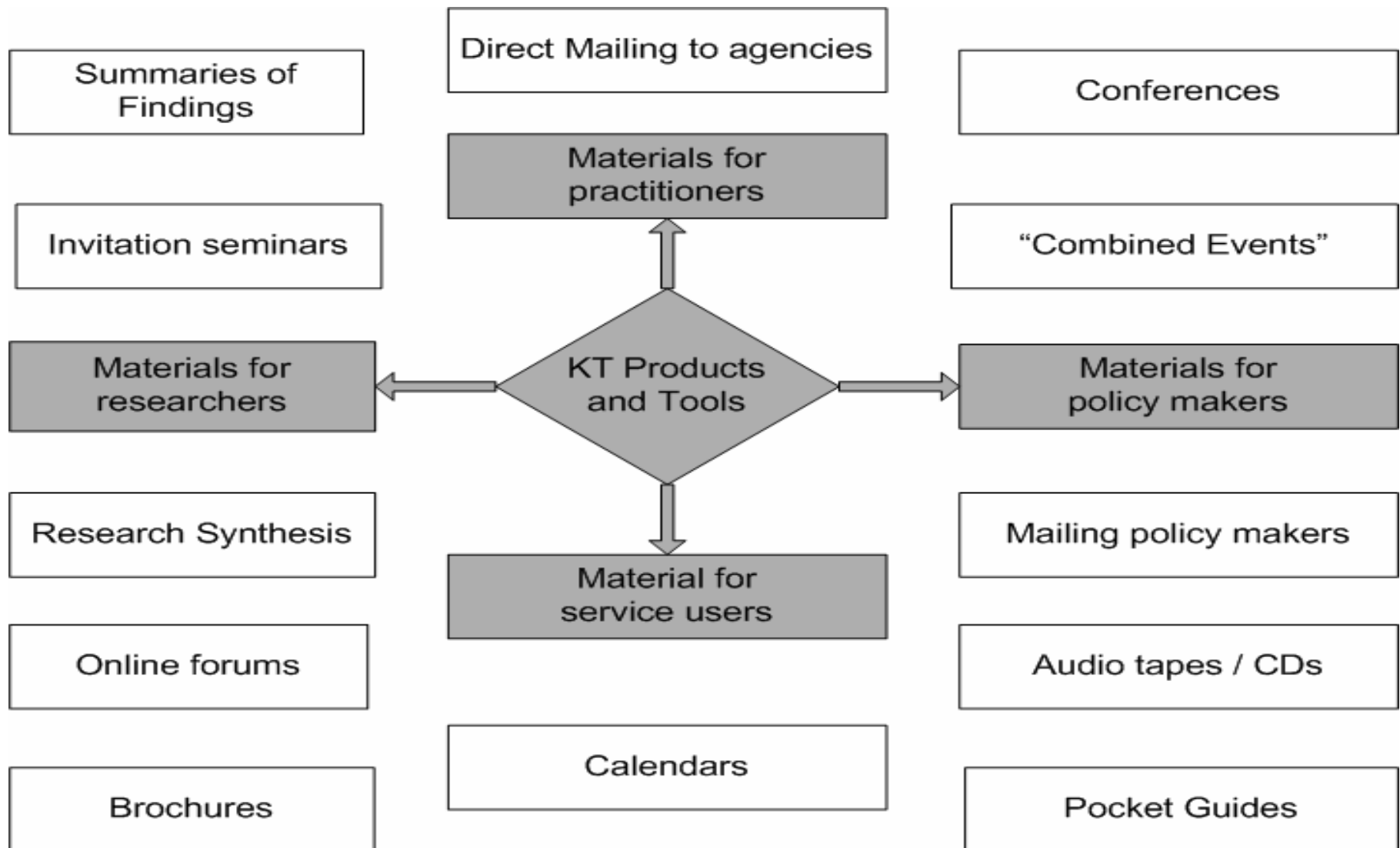
Access Barriers to Knowledge Use

- Methods to assess facilitators and barriers to knowledge use include:
 - Interviews
 - Focus Groups
 - Questionnaires
 - Direct observation
 - Analysis of administrative data

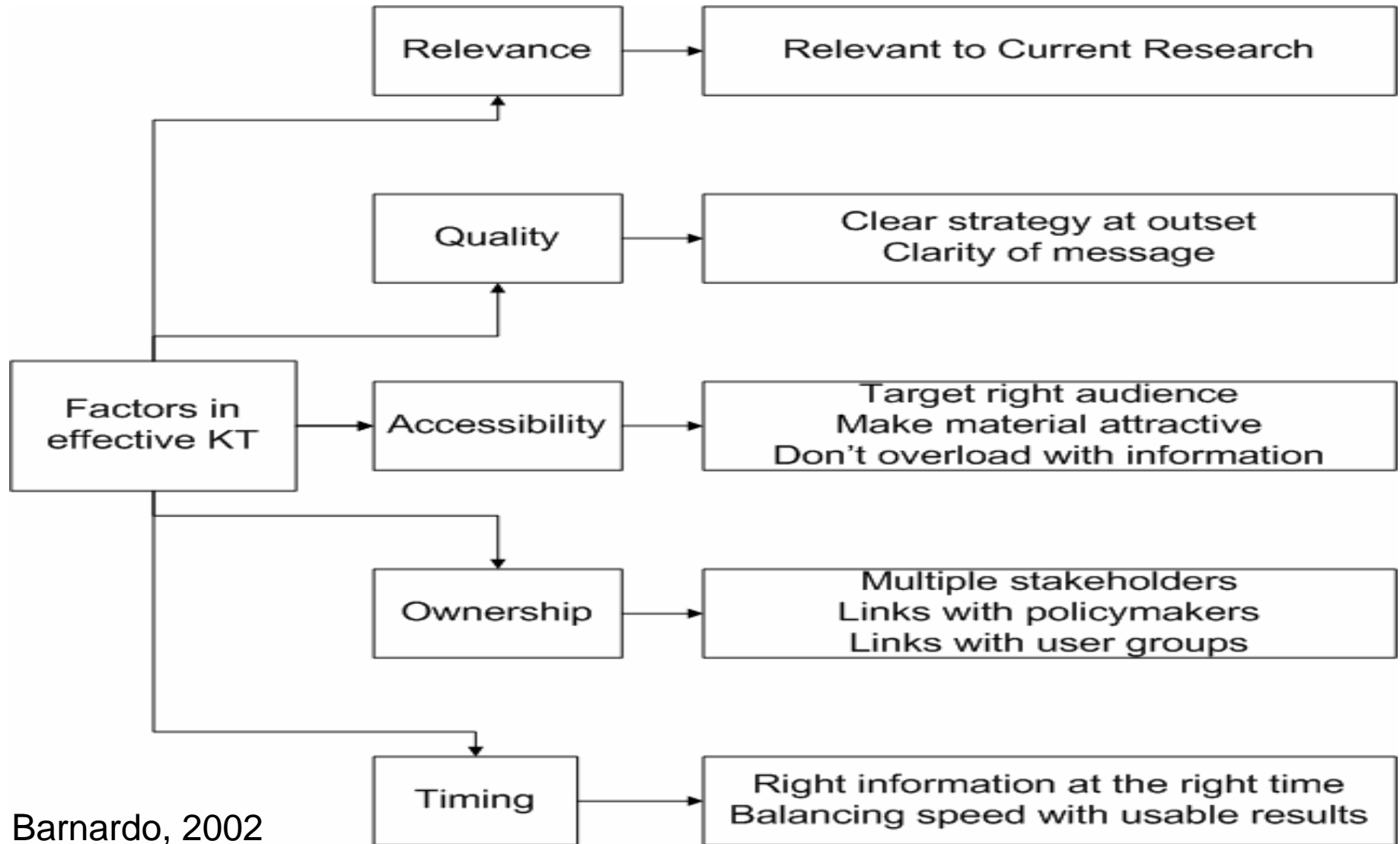
Implement Products / Tools

- Assess evidence to design feasible, targeted products and/or tools, including evidence-based actionable messages tailored for relevant audiences (Tugwell, et al., 2006, p. 646)
- Tailor products / tools for maximum uptake by the target audience
- Consider style, design, look, user-friendliness, portability, etc

Implement Products / Tools



Evaluate KT Process



Barnardo, 2002

Evaluate KT Process

- Monitor the uptake of products / tools
 - Count the number of visits to the website
 - Ratio between products created and products distributed
 - Use stakeholders group to provide assessment of uptake and use by consumers
 - Interviews with consumers to compare intended audience with actual audience

Evaluate Outcomes

- Relatively new field of research for Knowledge Transfer (Graham et al., 2006)
- Should be connected to original goals of KT activities
- Research design should fit intended goals of the evaluation
 - Temporal order: RCT / Quasi experimental
 - Correlation: Survey
 - In-depth analysis: Qualitative

Outcomes of Knowledge Use

- Conceptual knowledge use:
 - changes in understanding
- Instrumental knowledge use:
 - changes in behaviour
- Strategic knowledge use:
 - use of knowledge for personal power

(Graham et al, 2006)

Outcomes of Knowledge Use

- Outcomes need to be chosen at the onset and in combination with the development of the product / tool
- Outcomes need to be chosen on the basis of validity, reliability and sensitivity to change
- Outcomes may need to be tested and modified prior to implementation (Tugwell, 2006)

Evaluating KT

- Depends on the purpose and access to resources
- Tugwell (2006) distinguishes three purposes of evaluating KT activities:
 - For internal quality improvement
 - For external accountability
 - To research KT effectiveness

For Internal Quality Improvement

- Non-randomized pre-experimental study design
- Pre-Post KT or time series
- Qualitative research for rich description
- Explore process variables and changes in understanding

For External Accountability

- Non-randomized observational study design
- Pre-Post KT or time series
- Assess outcomes related to process, changes in understanding and changes in behaviour
- Qualitative research for rich description

To Research KT Effectiveness

- Experimental study designs are preferred
- RCT or Quasi-experimental designs with parallel cohorts and similar baselines
- Assess both process (how, why and what setting) and outcomes specific to the goals of the KT activities (e.g. reduction of falls)
- Qualitative research to provide additional insight

Sustain Knowledge Use

- Maintaining knowledge transfer activities
 - Reassessment of facilitators and barriers
 - Tailoring products and intervention strategies
 - Monitoring use
 - Evaluating impact
 - Sustaining knowledge use

Evaluation Challenges

- Justifying knowledge transfer impact
- Long-term and short-term perspectives
- Defining strategic knowledge performance
- Choosing data collection methods to get at preferred answers

(Debowski, 20005)

Discussion

- Knowledge transfer needs to be rigorously evaluated and monitored
- Qualitative and quantitative measures are suited to exploring the inputs and outcomes associated with knowledge transfer
- Evaluating Knowledge Transfer should reflect the nature of knowledge creation, action and evaluation

Activity

- In groups, you will be provided with a “target audience” and a “mock fact sheet”
- Mock fact sheet based on review knowledge of depression in the elderly after TBI based on systematic review:

Menzel, J (2008) Depression in the elderly after traumatic brain injury: A systematic review. *Brain Injury*, 22(5), 375-380

Activity

1. List the primary goals of developing the KT strategy:
 - Based on audience, message and desired effect
2. List potential barriers of implementing KT based on the intended audience
3. Brainstorm regarding the various products / tools to transfer knowledge and then pick the ‘best’
4. Developing an evaluation protocol by choosing a research design, type of outcomes and how you plan to measure the outcomes

References

- Barnardo's R&D (2000). What works? Making connections linking research and practice. Barkingside
- Debowksi, S. (2006), Knowledge Management, John Wiley & Sons, Sydney Australia
- Graham, JD, Logan, Harrison, MB, et al., (2006). Lost in knowledge translation: time for a map? Journal of Continuing Education in the Health Profession., 26(1), 13-24.
- Lavis, J., Ross, S., McLeod, C., & Gildiner, A. (2003). Measuring the impact of health research. Journal of Health Services & Research Policy, 8(3), 165-170.
- Menzel, J (2008) Depression in the elderly after traumatic brain injury: A systematic review. Brain Injury, 22(5), 375-380
- Petticrew, M & Roberts, H. (2006). Systematic reviews in the social sciences: A practical guide. Blackwell Publishing, Oxford, UK
- Provincial Centre of Excellence for Child and Youth Mental Health at CHEO (2006) Doing more with what you know. Ottawa, Ontario, www.onthepoint.ca
- Tugwell, P., Robinson, V., Grimshaw, J., Santesso, N (2006). Systematic reviews and knowledge translation. Bulletin of the World Health Organization, 84(8), 643-651.
- Tugwell, P. Santesso, N., O'Connor, A., Wilson, A. (2007) Knowledge translation for effective consumers. Physical Therapy, 87(12), 1728-1738.
- www.researchtopolicy.ca