Implementation Science
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• Disclosure: I have no relevant financial or nonfinancial relationship(s) within the products or services described, reviewed, evaluated or compared in this presentation.

For implementation science and lots of other things:
“Sometimes it isn’t obvious until it is obvious that it is obvious.”
Implementation Science: Perspectives of a Basic Researcher

$T1$, $T2$, $T3$ = stages of translation research

- **Basic research in a given field**
- **Clinical research**
- **Practice-based research**
- **Population-based research**

Knowledge transfer:
- Knowledge in other fields

Feedback:
- Successful translation
- Translation of little or no benefit – wisely not pursued
- Translation of substantial benefit not pursued -- missed opportunity!
Five Basic Questions of Transfer

• What? To Whom? By Whom? How? To what effect?
1. What Should Be Transferred?

- Basic research is not just an isolated upstream element in the process.
- Basic research is concerned with knowledge utilization (including interdisciplinary knowledge) to ensure the most valid and robust science.
- The products of eventual transfer include:
  - decision aids for patients
  - clinical practice guidelines for healthcare professionals
  - actionable messages and policy briefs for policymakers
2. To Whom Should Research Knowledge Be Transferred?

- Many possible stakeholders: patients, clinical practitioners, general public, policy makers
- Identify facilitators and barriers for each stakeholder.

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<th>Stakeholder</th>
<th>Facilitators</th>
<th>Barriers</th>
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<td>Patients</td>
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3. By Whom Should Research Knowledge Be Transferred?

- The basic unit of knowledge translation should usually be up-to-date systematic reviews or other syntheses of research.
  - Nature and strength of evidence
  - Potential for implementation
  - Risk of bias

- Basic scientists can and should be part of a team that conducts reviews and syntheses.
4. How Should Research Knowledge Be Transferred?


  PARiHS is a conceptual framework emphasizing 3 key elements related to successful implementation of evidence-based practices:
  
  • Evidence bases (research and others)
  • Context (environment or setting)
  • Facilitation (support factors)
5. What Effects Should Transfer of Research Knowledge Have?

- **Successful implementation** (Helfrich et al., 2010, *Implementation Science*, 5:82):
  - Realization of the implementation plan or strategy.
  - Achievement and maintenance of the targeted EBP.
  - Achievement and maintenance of end-point patient or organizational outcomes.