

(Towards) measuring interactions for research evaluation

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Starting point: a challenge

- Many promising results from basic science (in biomedicine) have not contributed to applications (medical treatments/ health care improvements) valued by society ... or the application has been very delayed
- Need to “translate” the knowledge of physical phenomena to the development of applications, solutions, practices
- Diagnosis (among others): there are divides among different actors involved in the development and application of new drugs, therapies, diagnostics or public health practices
- Translational research attempts to address these divides

Defining the problem (1)

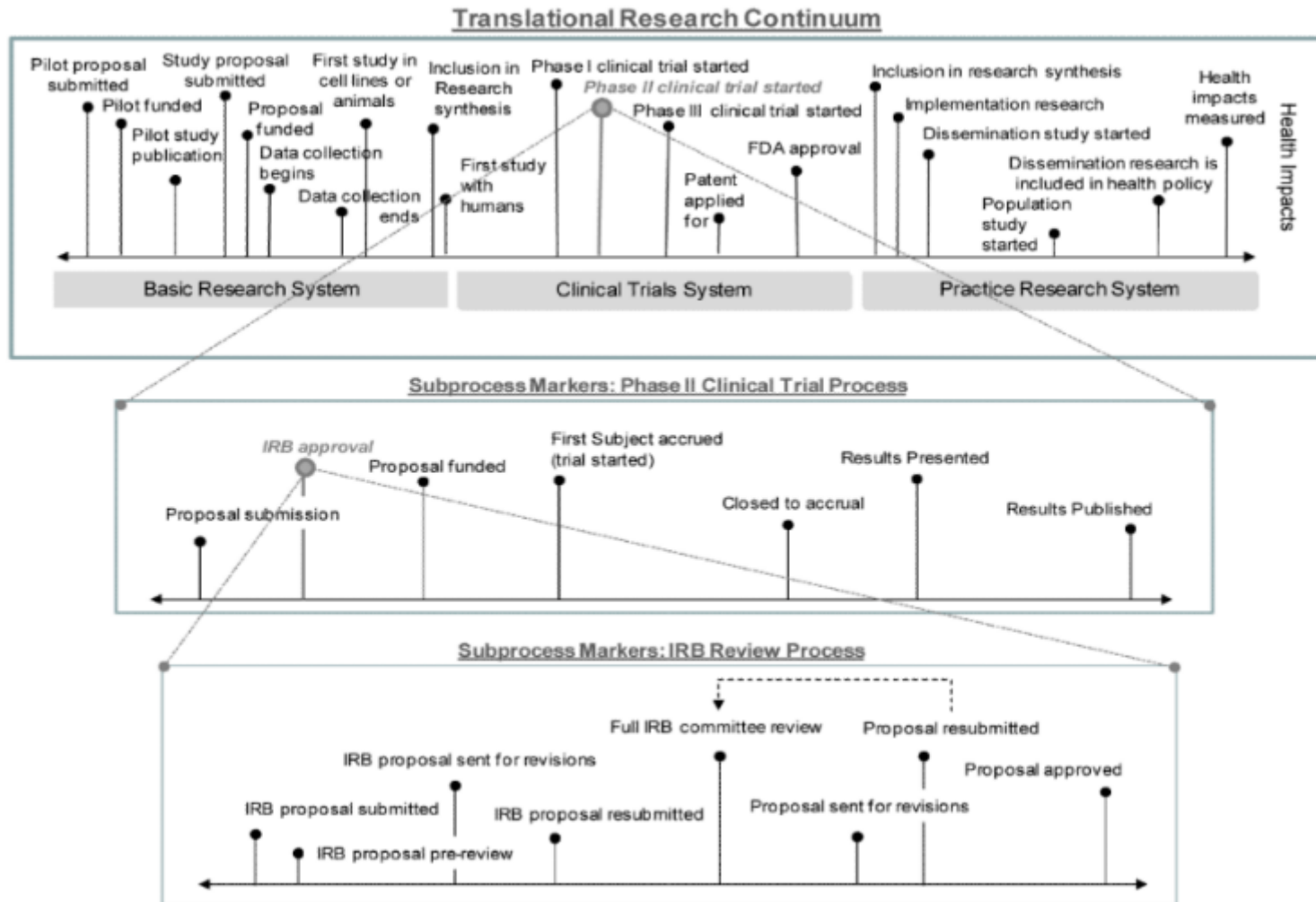


- Bridging problematic “translational gaps” separating different stages in the research and application process
- The influence of the “pipeline” or “pass the baton” view

Implications for evaluation: addressing the gaps in the “translational continuum”

- Focus on outputs,... outcomes and impacts
- Challenge: different ways of identifying gaps and addressing them.
 - “Different measures, of different things, at different time points” (Morris et al., 2011)
- Solution: agree models and definitions
 - Trochim et al. (2011) propose a generic evaluation model (i) identifying “markers” in the translation continuum
 - (ii) Measuring the time that it takes for outputs to move across markers

Process marker model (Trochim et al. 2011)



Defining the problem (2)

- Identifying outputs and measuring time gaps does not tell us “why” or “how” what we have observed happens
- Policy logic: Improvement requires interactions among diverse actors involved in research and the application of its results (researchers, practitioners, patients, etc.)
 - Diversity means individual elements are *distributed* among *many disparate* entities (3 components of diversity: balance, variety, disparity)
- Dealing with such diversity poses a policy (and analytical) challenge

A diversity approach

- Note that in a linear understanding of impact *diversity* is not a problem
 - “Passing the baton” is only affected by the differences among two sequential partners
- A diversity approach will focus on how diverse actors are networked to face a problem

Diversity occurs through many different dimensions (based on Boschma proximities)

- Cognitive: extent to which actors share a similar knowledge base
- Social: degree to which relations between actors are based on trust, generally built on common experience, friendship and kinship
- Organisational: degree to which hierarchical structures governs the interactions among actors
- Institutional: similarities in the norms, rules and values that influence how actors behave
- Spatial.

A Diversity Approach for Research Evaluation

- Offers a guiding framework for “narrative-based” evaluation...
- ... to describe characteristics of the processes by which impact is generated (or hindered)
- A multi-dimensional approach, which will (Rafols,...)
 - “Broaden out” the analysis
 - Using various data sources and analytical spaces
 - “Open it up”
 - Introducing different evaluation perspectives/criteria
- It drives us towards a “formative” type of evaluation
- Difficult to operationalise quantitatively, but there is scope for developing indicators