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The International School on Research Impact Assessment

## Programme Theory and Logic Modelling

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## Learning Outcomes

- To provide a model for thinking about assessments
  - Including underlying assumptions on how a program works
- To understand how to breakdown the expected impacts of a programme
- To develop familiarity with the logic model as a method of visualising programme performance
  - Be able to describe the value of using a logic model
  - Be able to complete simple logic models
  - Be able to relate the different components of a logic model to each other



#### Key concepts

- Theory of change/Programme theory
  - How you think the programme works i.e. your assumptions
- Logic models
  - A way to visualise and present how the programme works - i.e. a way to share your assumptions and work out what matters



# Theory of change/Programme theory - example 1

- If a new trial is published...
  - ...systematic reviews are updated
- If a systematic review is updated...
  - ...depended guidelines are revised
- If guidelines are revised...
  - ...doctors change what treatment they prescribe
- If doctors change their treatment they prescribe...
  - ...patients comply with new treatment
- If patients comply with new treatment
  - ...better health outcomes



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# Theory of change/Programme theory

- Depends on objectives of the programme
- This should have been defined up front
  - But often isn't
  - If it was understood, may not be written down
  - May need document review, key informant interviews to make objectives explicit



#### Logic models are picture books





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## Logic models



- A logic model is a flow chart of the programme
- It describes the assumed logical (causal) relationships among programme elements and the problem to be solved



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## Theory of change/Programme theory - example 2

- A new fellowship programme is designed to increase capacity in data science in a region
  - Fellowships will attract excellent researchers to the region
  - They will
    - do research that builds the reputation of regional institutions
    - teach students, who will go on to become data scientists
  - Some of those students will move out of research and into industry leading to economic growth



#### Example logic model

Resources •Salaries •Infrastructure - big data facilities •Access to data sets Activities •Set up phase •Selection process •Ongoing phase •Networking events •Scholarship schemes

Outputs •Teaching •Research Short-term Outcomes •Qualified students •Research papers Long-term outcomes •More innovative companies •Regional reputation for research



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#### **Refining dependencies**

Resources

Advertising
budget
Pool of applicants

Resources •Salaries •Infrastructure - big data facilities •Access to data sets Set up Activities •Advertising campaign •Selection process

Ongoing Activities •Salaries •Networking events •Scholarship schemes Outputs •Teaching •Research Short-term Outcomes •Qualified students •Research papers Long-term outcomes •More innovative companies •Regional reputation for research



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## Adding outside influences, considering contribution and attribution

Resources •Salaries •Infrastructure - big data facilities •Access to data sets Activities •Set up phase •Selection process •Ongoing phase •Networking events •Scholarship schemes

Outputs

Teaching
Research

Short-term Outcomes •Qualified students •Research papers Long-term outcomes •More innovative companies •Regional reputation for research

Qualified students leave region because they cannot afford house prices



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## The Returns from Arthritis Research

- Project to examine the impact of arthritis research
- Funded by Arthritis UK
  - fourth largest charitable funder of research in the UK
  - funded more than £25m of research per annum
  - One massive success: Anti-TNF drugs, \$5bn sales in 2003



A report prepared by RAND Europe for the Arthritis Research Campaign (arc)





#### The situation in 2003

- ARC Strategic Review 2002 65th Anniversary
- Perception of a gap between activities and mission
- Many charities were wringing their hands; few were doing anything about this gap
- ARC decided to commission RAND Europe to evaluate the research they had funded over the long term to...
- Understand the diversity of impacts
- Explore how those impacts came about



#### **Payback Framework**







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### **Payback Model**





### **Payback Categories**

- Knowledge production
- Research Targeting,
   Capacity Building
- Informing Policy or Product Development
- Health and Health Sector
   Benefits
- Broader Economic
   Benefits





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#### Lessons learnt

- Improving policy
  - Provided support for maintaining project grant funding
  - Intended and unintended flexibility is used advantageously—ie, reassurance about increased flexibility
- Accountability and engagement
  - Demonstrated diversity and extent of payback
  - Case studies



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## Learning Activity



- List the key objectives for the programme you have decided to work on and link them to processes intended to deliver them
- Compare objectives and processes around the table and see whether these spark new thoughts about what your own programme was intended to do
- What external influences affect the success of your own programme?
- 15 minutes



#### Key Messages

- Simple concepts
- Logic models help to clarify thinking
  - for the evaluator
  - for other stakeholders



#### **Recommended Reading**

- W.K. Kellogg Foundation Logic Model Development Guide
  - <u>http://www.wkkf.org/resource-directory/resource/2006/02/wk-kellogg-foundation-logic-model-development-guide</u>





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